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ABSTRACT

The unit experiences for the K-12 curriculum guide, including these for grade 4, are outlined in SO 001 139. These units initiate the study of geographic regions of the world. Emphasis in these area studies is placed on the regional topography, geographic factors, and people's economic, social, and cultural adjustment to their environment or surroundings. Overview, objectives, motivational, developmental, and review activities, and content for each of the various sub-units are summarized: 1) Use of Map and Globe --community, country or national community, continent, world, solar system; 2) Metropolitan Study --historical development of Denver, demography, points of interest, government, economic characteristics, and comparison with New York City; 3) Island Regions --general, and detailed area study of Japan including physical features, climate, history, culture, occupations, transportation and communication, education, and government; 4) Man at High Latitudes --Eskimo and Lapp and life on tundra lands; 5) Desert Lands (Saudi Arabia) --comparisons with the desert lands of Arizona, New Mexico, and Utah, with possible cultural comparisons; 6) Hot, Wet Lands of the Rain Forest (Amazon and Congo); 7) Polder, Land from the Sea (Netherlands); 8) Mountain Region (Equador); 9) Ranchlands in Argentina and the United States; and, 10) California, Land of Contrast --comparison with all the other areas of the world. Evaluation objectives and techniques are also enumerated. SO 001 138 through SO 001 144 are related units. (Author/SBE)

ED0 54008

SO 001 142

K - 12 SOCIAL STUDIES

CURRICULUM GUIDE

Arapahoe County
School Dist. No. 6

LITTLETON, COLORADO

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A TEACHING GUIDE AND EXPERIENCE UNITS
K - 12
SOCIAL STUDIES

ARAPAHOE COUNTY SCHOOL DISTRICT NUMBER SIX
Littleton, Colorado

April 1, 1970

ARAPAHOE COUNTY SCHOOL DISTRICT NUMBER SIX
LITTLETON, COLORADO

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The professional staff of School District Six is to be commended for their efforts and contributions relative to the development of the K-12 Social Studies Curriculum. Areas of emphasis included research, writing, piloting, and evaluation of the K-12 Social Studies Program.

Special recognition should be given to all of the classroom teachers who devoted many hours to writing the experience units at the various levels. Also to the pilot teachers for their willingness to work with the program in order that the teaching guide and units could be evaluated, revised and the most appropriate materials identified.

Outstanding leadership was provided by the teachers and administrators who were members of the K-12 Social Studies Committees during the four year period of development.

Special acknowledgement should also be extended to the Elementary Social Studies Core Team members, Miss Lois Schoeneck, Primary Chairman, Miss Helen Davis, Intermediate Chairman, Mr. Wallace Barth and Mr. Donald Yocum, Administrative Advisors, and to the Secondary Social Studies Council for their dedication to the project.

DISTRICT PHILOSOPHY

We believe:

I. That man possesses an awareness of the universal through his very nature

II. That students have the inherent ability and responsibility to be useful citizens in a democratic society; and that they must be schooled to their commitment in the ever-developing processes of preserving and promoting a democratic way of life.

III. That in the inevitable process of change, it is necessary for the student to understand and cope with the complexities which involve man's behavior as a social entity

IV. That the search for truth necessitates the scientific scrutiny of an unlimited diversity of knowledge

V. That the Social Studies have as their underlying principles--the development of conceptual understandings, the development of attitudes and appreciation, and the development of skills and competencies in the various disciplines

VI. That it is the teacher who holds the strategic position in guiding the learning experiences of the student

DISTRICT OBJECTIVES

It is our purpose to develop within the student through the acquisition of knowledge in the social studies the following attributes:

I. A respect for the rights and opinions of others

II. The ability to work in group situations as well as working individually

III. Capacities for effective participation in the social groups of which the student is a member--home, school, and community

IV. A commitment to well-informed, alert, and responsible citizenship

V. A realization of the value of the quest for excellence both for self-realization and social usefulness

VI. The ability to think critically and creatively and use problem solving skills in situations involving human relationships; to locate, evaluate, select, organize, and present information effectively; and to base action on sound conclusions

VII. An understanding of the major concepts present within the Social Studies

VIII. Ability to function effectively as producer and consumer

IX. The individual's wise approach and utilization of world resources

X. An understanding of the interdependence of men and nations

XI. A realization of the inevitability of change and the development of some of the skills and attitudes needed to successfully cope with change

ELEMENTARY SOCIAL STUDIES OVERVIEW

Unit experiences at the primary level are designed to achieve a more comprehensive knowledge of the world in which we live. A necessary facet of interpreting and understanding the physical and cultural environment is a study of geographic skills and content. Similarly, specific units emphasize democratic values, ideals, and processes.

In kindergarten the children are guided toward observing familiar places, people, and experiences with increased understanding. A first grade study of comparative family living will help the student become aware of the similarities and differences in various family patterns. At the second grade level a study of homes reflects the influences of geographical and cultural factors in group living. In third grade a comparative study of community life, past and present, provides the pupil with a greater background of experience and understanding in the world of people and events.

Maintaining the continuity and sequence developed in K-3, the fourth grade unit, "Metropolitan Denver Area," will initiate the study of geographic regions of the world. The unit has experiences which foster an understanding of the interdependency of people in carrying on life's daily activities and securing basic needs. Emphasis is placed on the regional topography, geographic factors, and people's adjustment to surroundings. At the fifth grade level content material includes the history, geography and economics of regions of the United States. The depth study of Colorado draws a relationship between the state, the nation, and the world. Emphasis is placed on Latin America and Canada at the sixth grade level.

At the intermediate level geography units include a study of man's relationship to his environment and the structure of society in various regions of the world. Emphasis is twofold: (1) To know his American heritage, as well as to become aware of the rights, freedoms, and responsibilities that occur in a democracy. (2) To recognize the strategic position of the United States in the Western Hemisphere through the study of inter-American relations.

SECONDARY SOCIAL STUDIES OVERVIEW

The guiding principle governing the sequence of courses on the secondary level is twofold. First, the disciplines are to be studied separately as a specific aspect of man's being. Second, the areas of study selected are the necessary foundational ideas of civilization. Beginning with the root development of ideals and values in Europe, which is developed in the last semester of grade seven, and followed by the same approach of the non-western world in grade eight, a foundation is prepared for the study of United States History in grades nine and ten. This two year course of study will focus upon eight major themes in our nations' history. The course in grade eleven will concentrate on the evolution of the world to the present. It will draw from all the disciplines and prepare the student for the culminating course of grade twelve--Contemporary Civilizations. With the conclusion of this course all disciplines, present within the Social Studies, will have been presented in a world-wide scope.

DISTRICT CONCEPTS

LEVEL	ECONOMICS	HISTORY	GEOGRAPHY	POLITICAL SCIE
Kindergarten	The distinctive character of one's surroundings is influenced by his economic status.	Everyone has a historical heritage.	Families congregate where geographical conditions are favorable.	Rules are nece for the enjoym of group livin
First	Family incomes vary.	Every family has an historical past.	Everyone has a geographical setting.	Members of a munity are de ent upon one other.
Second	Community services fall into two categories, tax-supported and privately initiated.	Communities differ in their historical development.	The type of home is influenced by the geographical location.	Facilities to tect our live property are tained in com ities.
Third	Mankind is economically interdependent for food, clothing, communication, and transportation.	The initiative of earlier people has established the foundation of our present civilization.	Man faces the need to compromise and adjust to his physical surroundings.	Many people contributed make our cou great.

ISTRICT CONCEPTS

	GEOGRAPHY	POLITICAL SCIENCE	SOCIOLOGY	ANTHROPOLOGY
a	Families congregate where geographical conditions are favorable.	Rules are necessary for the enjoyment of group living.	The basic unit of group living is the family.	All people of the earth are not the same.
i-	Everyone has a geographical setting.	Members of a community are dependent upon one another.	While all people are somewhat alike, differences must be respected.	Family customs and social rituals vary throughout the world.
-	The type of home is influenced by the geographical location.	Facilities to protect our lives and property are maintained in communities.	Man is becoming more dependent upon other individuals and groups to meet his basic needs.	Homes in other lands bear certain similarities to and differences from homes in our country.
e ople ed n of	Man faces the need to compromise and adjust to his physical surroundings.	Many people have contributed to make our country great.	The combined efforts of diverse peoples are necessary for community living.	Communities in other lands can be compared to communities in our country.

LEVEL	ECONOMICS	HISTORY	GEOGRAPHY	POLITICAL SCI
Fourth	Man has unlimited wants, but must adjust to limited supply.	The history of an area is the summation of of biographies of the individuals within the area.	Physical environment influences the way people live. Man portrays, measures, delineates, and locates through the use of maps and globes.	In carrying o life's daily ivities to se basic needs, tend to insti systems of co
Fifth	The United States Economic system is based upon the exchange of goods and services.	The historical development of the United States has been influenced in part by events from Europe.	Man seeks to satisfy his basic needs for food, clothing and shelter through the use of the earth's natural resources.	Democracy is government b people, eith directly or elective rep atives. Rep ative govern in the Unite States depen an active ci participatio
Sixth	A nation's growth and development are interrelated with its available raw economy.	Man is aided and influenced by ideas and implications of the past.	Climate, location, natural resources, and the inhabitants of a geographic region influence the degree to which a region will develop.	The values democratic ment may be through apat factional fi ing, graft, of power an itary domina

GEOGRAPHY	POLITICAL SCIENCE	SOCIOLOGY	ANTHROPOLOGY
Physical environment influences the way people live. Man portrays, measures, delineates, and locates through the use of maps and globes.	In carrying on life's daily activities to secure basic needs, people tend to institute systems of control.	A city is made up of diverse types of peoples highly interdependent institutions and organizations.	The customs of peoples around the world are influenced by environment.
Man seeks to satisfy his basic needs for food, clothing and shelter through the use of the earth's natural resources.	Democracy is a government by the people, either directly or through elective representatives. Representative government in the United States depends on an active citizen participation.	Every individual has worth and has a right to develop his potential to the fullest.	Our national character is influenced by the contributions of many regions of our country.'
Climate, location, natural resources, and the inhabitants of a geographic region influence the degree to which a region will develop.	The values of a democratic government may be lost through apathy, factional fighting, graft, abuse of power and military dominance.	All peoples have similar characteristics and the same basic needs.	Cultures and civilizations are constantly changing. Man must adjust to this change to achieve progress. Cultures are influenced by constant and ever-changing interrelationships with other cultures..

LEVEL	ECONOMICS	HISTORY	GEOGRAPHY	POLITICAL SC
Seventh	Economics is the science of the distribution, production and consumption of goods and sources.	History is the branch of knowledge which records past events. A survey of this branch of knowledge is invaluable as a basis for understanding the contemporary problems and nature of the world.	Geography is the consideration of the location, time and scale of an area. The habit of thinking of areas in terms of their place and relationship to one another is essential for an understanding of the world.	Political Sc deals with t structure an theory of go ment as it r to the contr tem of any n or country. nature of th political sy which will e in any natic pends in pa its citizens
Eighth	Man's effective use of human and natural resources is a determining factor in a nation's stability, worth, and effectiveness.	The history of the Non-Western world is composed of the cultural and philosophical developments of this area. The contact of the West and Non-West has produced a mutual exchange of ideas and illustrates the interactive quality of history.	Physical and geographical conditions are important to a country's historical progress. Land structure, natural resources, water, climate, and other geographical factors influence cultural behavior.	The change itical powe flects chan cultural an torical pat Conflict ha a basic and amental fac the growth development civilizatio

PHY	POLITICAL SCIENCE	SOCIOLOGY	ANTHROPOLOGY
phy is the eration of cation, nd scale area. The of thinking as in terms ir place lationship another is ial for an tanding of rld.	Political Science deals with the structure and theory of government as it relates to the control system of any nation or country. The nature of the political system which will evolve in any nation depends in part upon its citizens.	Sociology is the social science which is an attempt to understand the nature of and the influence of the forces which act upon social reality. The task of the sociologist is to study the nature of social reality, to analyze its structure and to understand its influence on human behavior.	Anthropology is the study of culture. Man must communicate with his contemporaries through language to survive.
al and geo- cal condi- are import- a country's ical progress. tructure, l resources, climate, and geographical s influence al behavior.	The change of political power reflects changing cultural and historical patterns. Conflict has been a basic and fundamental factor in the growth and development of civilization.	Every society develops a culture of its own even though some of the ideas are borrowed from other cultures.	Adjustments on a local basis to differences arising from contacts with other cultures have accelerated changes in life.

LEVEL	ECONOMICS	HISTORY	GEOGRAPHY
Ninth	In the United States as man progressed in ability to use and control human and natural resources, more intricate forms of economic organizations emerged. The move from a subsistence economy to a surplus economy characterizes the beginning of the rise of the United States to a world position.	As western civilization sought contact with the East a new world was discovered. The European response to change led to the settlement of the new world and the rise of new nations. One of the new nations, the United States, is a product of a historic civilization responding to challenge.	The United States has a variety of climates and topography within its boundaries. These factors contribute to regional economic and industrial developments. These factors also produced sectional political thinking and social standards.
Tenth*	An economy where government is a more active partner is a growing American trait.	History is a record of man's answers to the challenges of each period in his history. The successful accomplishment of each response leads to further problems.	In the United States, emphasis changes from geographical expansion to utilization of resources in industrialization and urbanization.

*To be revised fall of 1969.

	GEOGRAPHY	POLITICAL SCIENCE	SOCIOLOGY	ANTHROPOLOGY
civil- ght contact st a new iscovered. n response ed to the of the new he rise of . One of ions, the es, is a a historic n re- challenge.	The United States has a variety of climates and topography within its boundaries. These factors contribute to regional economic and industrial developments. These factors also produced sectional political thinking and social standards.	The United States is a continued evolution of the European institutions. An individual's political beliefs are directly proportioned to his "share" in the system.	The society of the United States is not completely harmonious: some form of social disorganization has been present. This society is built on the complex needs and desires of humans.	The culture of the United States while predominantly Anglo-Saxon, was influenced by various minority groups.
a record swers to ges of in his he suc- omp- each ads to blems.	In the United States, emphasis changes from geographical expansion to utilization of resources in industrialization and urbanization.	Political institutions are built on the necessity of compromise and moderation allowing for evolution and peaceful reforms. International influences develop national commitments and philosophies.	Technological developments tend to hasten social changes.	Technological developments tend to hasten cultural changes.

LEVEL	ECONOMICS	HISTORY	GEOGRAPHY	POLITICA
Eleventh*	Economic conflict stems from the inequality between the unlimited wants of mankind and the limited availability of resources.	Because change is an inevitable force, history is the record of civilizations facing or resisting this force. Flexible civilizations achieve progress.	Geography influences not only man and his actions, but nation-states must compensate for geographical factors for survival.	The worl more int as natio advance cally.
Twelfth*	Economic understanding helps man survive in the present-day world.	History is a process; a continuing development involving constant change.	Geographical knowledge is necessary for man to understand the world of today.	Man iden himself itically contempo world. depender the worl man to a an ident in the i national

* To be revised fall, 1968.

	GEOGRAPHY	POLITICAL SCIENCE	SOCIOLOGY	ANTHROPOLOGY
hange is able story cord of ions fac- sisting e. Flex- lizations rogress.	Geography influences not only man and his actions, but nation-states must compensate for geographical factors for survival.	The world becomes more interdependent as nations and men advance technologically.	All characteristically human behavior is learned from other human beings through group interaction. Man is by nature a gregarious creature and in order to understand him one must understand the various groups with which he associates.	Man, his institions and his culture are interactive.
s a a con- evelop- lving change.	Geographical knowledge is necessary for man to understand the world of today.	Man identifies himself politically in the contemporary world. Interdependency of the world forces man to achieve an identification in the international community.	Aesthetic realization and identification helps man to live a richer life in the contemporary world.	Aesthetic realization helps man to live a richer life in the contemporary world.

A STUDY OF GEOGRAPHICAL REGIONS OF THE WORLD

Fourth Grade

Units

- Use of Map and Globe
- Metropolitan Study
- Island Regions
- Man at High Latitudes
- Desert Lands
- Hot, Wet Lands of the Rain Forest
- Polder - Land from the Sea
- Mountain Region
- Ranchlands
- California - Land of Contrast

USE OF MAP AND GLOBE

MAP AND GLOBE USAGE

I. Overview

This unit is designed to assist the fourth grade student in refining his basic understanding of maps and globes. As the teaching of map skills is a continual process, the skills in this unit are reinforced throughout the year. The approximate length of teaching time for the unit is two weeks.

"Maps are the sine qua non of teaching geography. They provide man with a way of backing off and looking at the earth. Maps help to bring geographic information under control. In this measure, they also help to render the abstract more concrete. The discipline and terminology of the map must first be learned. It is essential at the intermediate age that pupils be given many opportunities to make maps, plot data, and see patterns emerge. Because the map itself is an abstraction, the child must be able to conjure the most concrete possible image for each word and symbol in the legend. How far is a mile, in terms of his own experience? How big is a city of 200,000 inhabitants? What, indeed (for some children) is a river, a lake, a lagoon? What is wheat? How big is a bushel? How large is an acre? How much is 40 inches of rainfall? The child should be guided to see real associations on a map, the preliminary step to regionalizing. He should be encouraged to generalize from maps. He will not be able to verbalize successfully unless he has had a hand in making a map, in collecting, sorting, and plotting data. It is self-invovlvement that is the key to the successful use of maps." ---------Dorothy Drummond, "Developing Geography Concepts in the Intermediate Grades," Social Education XXX (December, 1966).

II. Objectives

A. To review the terms community, country, continent, hemisphere and world
B. To refine the student's ability to use and interpret map symbols, legends and scales
C. To develop an understanding of the advantages and disadvantages of a map
D. To develop an understanding of the advantages and disadvantages of a globe
E. To develop an awareness of the following geographic terms: mountains, peaks, valley, plains, plateau, ocean, sea, gulf, bay, island peninsula, isthmus, strait, river, source and mouth of a river, tributary and delta

F. To develop an initial understanding of the causation of seasons
G. To develop an initial understanding of the terms latitude and longitude

III. Content

A. Review the term community.

1. Family unit
2. Neighborhood (shopping centers, school, church, fire equipment)
3. The larger community - (associated neighborhoods) public services (water, police, libraries, etc.) Example: Littleton and Metropolitan Denver and the enterprises special to these, such as museums, railroads, airports. (At this point emphasize that a town or city is a particular place in a large area, located on maps and globes. It is also a political unit.)
4. The state (Colorado). Historically the state community developed when several local communities in a former territory needed services which few or none could perform successfully alone. The public and private institutions operating throughout the state attempt to provide the local communities with services which are not otherwise feasible because of cost factors, etc.
5. Region of states (the South, the West, the North Central, and the Northeast). In recent years several states who have similar concerns have cooperated with each other in seeking solutions to their problems.

B. Review the term country (national community)

1. A country is a political entity with definite boundaries.
2. At least some of the governmental activities are common to the entire area and function under one government.
3. It is more common for a country to encompass peoples of different languages, racial stocks, or cultural groups, than the reverse. (Examples of countries which have the largest number of different cultural groups are the Soviet Union, China, India, Indonesia, Burma, Thailand, Vietnam and Nigeria. Examples of countries characterized by homogeneity - one language or one cultural group - are Iceland, Denmark, Austria, and Portugal. Some of the wellknown countries which have two or three significant language groups are France, Spain, Sweden, Finland, Belgium, Great Britain, Canada, and Peru.)
4. Countries may have many kinds of land masses: mountains, plains, sea coasts, etc. Many countries also have a major river or rivers. Some of these natural formations form natural boundaries, sometimes based on historical conditions.

C. Review the term continent

1. A continent is an arbitrary division created by man to assist him in classification.
2. The seven large land masses are the following: North America, South America, Europe, Asia, Australia, Africa, and Antartica.
3. They may have natural boundaries of water.
4. They may contain one or more countries.

D. Review the term world.

1. It is treated as the entire earth, the home of mankind.
2. The areal space which the world community comprises is easily defined.

E. Review the term solar system. (Closely bound family of worlds and its parent sun.)

F. Differences between maps and globes.

1. A globe is a replica of the earth

   a. Advantages of a globe.
      1) It gives an almost exact picture of the surface of earth.
      2) It can show true directions and distances between different parts of the world.
      3) It shows all land and water areas in their true size and shape.

   b. Disadvantages of a globe

      1) Bulky for easy portability in a car, etc.
      2) Cannot be folded or made flat.
      3) Only one half of the earth is visible at one time.

2. A map is a graphic picture of a part or all of the earth.

   a. Advantages of a map

      1) Can display more detail than a globe.
      2) Can display a small part or a large part of the earth's surface - greater flexibility.

   b. Disadvantages of a map

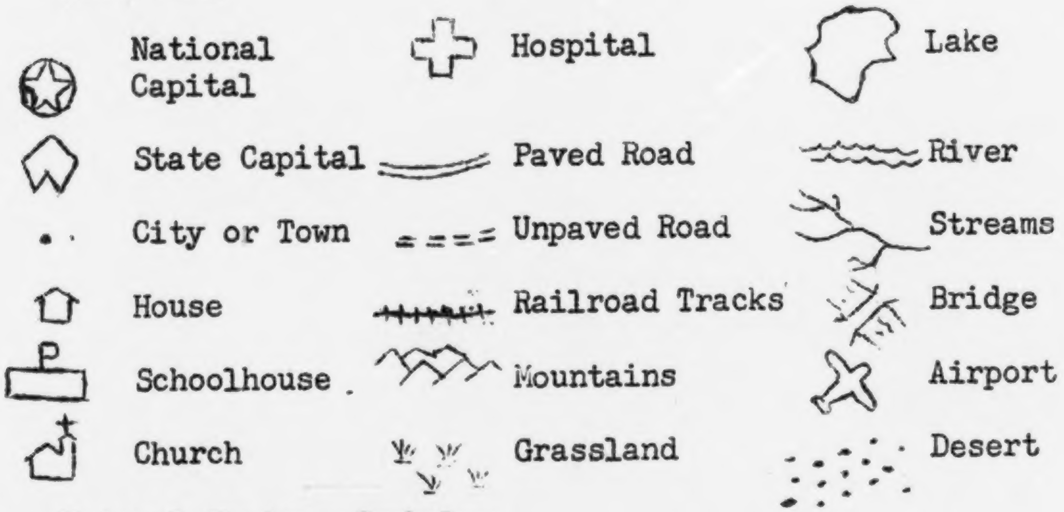
      1) Different types of projections create differing degrees of distortion of land and water areas. (Mercator projection - land areas are in correct position of longitude and latitude, but are very large in proportion to areas near the equator.)

2) It may not indicate true direction and distance between different parts of the world.

G. Symbols and legends

1. A symbol is a representation of an actual object.
2. A legend is a title, brief inscription, or key accompanying an illustration or map.

   a. Symbols which should be presented are the following:


National Capital
Hospital
Lake
State Capital
Paved Road
River
City or Town
Unpaved Road
Streams
House
Railroad Tracks
Bridge
Schoolhouse
Mountains
Airport
Church
Grassland
Desert

   b. Natural Feature Symbols:

      Green - land less than 1,000 feet above sea level
      Yellow - land between 1,000 and 2,000 feet above sea level
      Tan - land between 2,000 and 5,000 feet above sea level
      Orange - land between 5,000 and 10,000 feet above sea level
      Brown - land more than 10,000 feet above sea level

H. Scale

1. It has reference to the fractional representation of the earth.
2. It can be represented in different ways.
3. It may be defined as the relationship between distance measured on the map and the corresponding distance on the earth's surface.
4. It is expressed as a ratio between a linear unit on the map and a stated number of the same units on the ground.
5. Detail is lost as the scale is diminished.

I. Geographical features

1. Mountains are a natural, raised part of the earth's surface, usually rising more or less abruptly.
2. Mountain peaks are the high points of mountains - crest or summit.
3. A valley is a lowland between hills or mountains.
4. Plains are the smooth level lands.
5. Plateaus are elevated tracts of more or less level land - highland.
6. Oceans are the largest bodies of water on earth.
7. Seas are larger bodies of water partly or completely surrounded by land.
8. Gulfs are bodies of water partly surrounded by land.
9. Bays are small bodies of water partly surrounded by land - similar to a gulf - but smaller.
10. Islands are bodies of land surrounded by water.
11. Peninsulas are bodies of land surrounded by water on three sides.
12. An isthmus is a narrow strip of land surrounded on two sides by water and connecting two large bodies of land.
13. Straits are narrow bodies of water that connect two larger bodies of water.
14. Rivers are streams of water which flow through land.
15. A source of a river is where the river begins.
16. A mouth is the place where a river flows into a larger body of water.
17. A delta is land formed at the mouth of a river by the deposit of silt. Mud carried by the river sinks when the velocity of the river is checked.

J. Earth - sun relationship

1. Latitude

   a. It assists us in locating various places on the globe.
   b. It is the distance north or south of the equator measured along the meridans and given in degrees.
   c. The equator is zero degrees latitude.
   d. The latitude of the North Pole is 90 degrees North; the latitude of the South Pole is 90 degrees South.
   e. Lines of latitude are everywhere equidistance from each other, and therefore, are frequently called parallels of latitude.

2. Longitude

   a. It assists us in locating certain points. (By knowing both the degrees of latitude (N or S) and the degrees of longitude (E or W) a position may be exactly pinpointed.)

b. It is the distance east or west from the prime meridian and is measured in degrees.
c. Lines of longitude or meridians extend from pole to pole and are numbered according to their distance, in degrees, from the prime meridian which is numbered zero.
d. The prime meridian passes through Greenwich, a part of London, England.
e. The number of the first meridian east of the prime meridian is 15 degrees from the prime or zero meridian. (Meridians are spaced at 15 degree intervals around the globe.)
f. Counting by fifteen degrees halfway around the globe in either direction from the prime meridian one reaches 180 degrees. (This is the greatest distance, in degrees, that any place can be from the prime meridian.)

3. Zones - sun lines

a. Geographers frequently divide the earth into three great regions based on latitude

1) Low latitudes are between 0 degrees and 30 degrees.

a) Sun is almost directly overhead all year around. Here the climate is usually hot most of the year.

2) Middle latitudes are between 30 degrees and 60 degrees.

a) There are big seasonal changes.
b) There are noticeable seasonal changes. Summers are warm and the winters are cold.

3) High latitudes are located between 60 degrees and 90 degrees.

a) The sun is never overhead.
b) At the North and South Pole the sun is not visible for half of the year.
c) It is cold most of the year.

b. Rays of sunlight are most concentrated in the Northern Hemisphere and the area has the greatest number of hours of daylight during the summer solstice.
c. Rays of sunlight are most concentrated in the Southern Hemisphere and the area has the greatest number of hours of daylight during the winter solstice.
d. Rays of sunlight are most concentrated on the equator during the vernal equinox (March 21) and the autumnal equinox (September 22).

   - e. The hemisphere of the earth that receives the more concentrated rays of the sun and the longest hours of sunlight will receive more solar energy. It will receive more solar energy. It will tend to be warmer than the hemisphere that receives less sunlight.

4. Rotation

   - a. The earth rotates on its axis once approximately every 24 hours.
   - b. The axis of the earth is the imaginary line on which an object actually rotates.
   - c. The turning or rotation of the earth on its axis gives us day and night.
   - d. The earth rotates on its axis at an angle of 23½ degrees.(The axis is always parallel to its previous position. The earth is always tilted the same direction and at the same slant.)

5. Revolution

   - a. The earth makes one complete revolution around the sun once every 365¼ days.
   - b. The yearly motion of the earth around the sun is the definition of revolution as it relates to this situation.

K. Hemispheres

1. Hemi means "half".
2. Sphere means "ball".
3. The equator divides the earth into Northern and Southern Hemispheres.
4. Globes are also divided into two equal parts along a line running from the North Pole to the South Pole. This separates the Eastern and Western Hemispheres.

   - a. Continents in the Western Hemisphere are North and South America.
   - b. Europe, Asia, Africa, and Australia are in the Eastern Hemisphere.

IV. Activities

A. As a quiz on the advantages of the globe or map use questions such as the following:

1. Which would you use to show a stranger the route to the state capital? (Map) Why?

2. Which would you use to show the size of the Pacific Ocean? (Either) Why?
3. Which would you use if you wished to see the whole earth at one time? (Map) Why?
4. Which is more accurate? (Globe) Why?
5. Which can show more about a city or state? (Map) Why?
6. Which is better for showing where on the earth a continent lies? (Globe) Why?

B. Symbols and legends

1. Explain the purpose of legends and symbols.
2. Display several different maps. Compare various legends and symbols used in each and give practice in using them.
3. Have children make picture dictionaries of map symbols.
4. Have children draw a map of the area between their homes and school, using as many semi-pictorial symbols as possible.
5. Have children use a color key to make a simple visual relief map showing elevation.
6. Have children make a collection of several interesting maps with informative legends which they can understand and explain to the class.
7. Have children make a chart showing various symbols used in map legends.
8. Have children pair off symbols with flash cards showing picture of symbols.

C. Scales

1. Have students discover the purpose of scales.
2. Compare maps of different areas to note that a smaller scale must be used to map larger areas.
3. Compare actual length of a block or mile with that shown on a large-scale map.
4. Find three maps of the same area but with different scales and compare them.
5. Compute mileage between two points on a Colorado map.
6. Plan the shortest route from Littleton to Dallas.
7. Study a road map and plan a trip.
8. Choose a rectangular object and draw it to scale using a scale of one inch equals one foot.

D. Geographical features

1. Locate examples of the geographical features on maps and globes.
2. Have students devise their own symbols for representing these geographical features on a map or globe.
3. Develop a word chart of geographical terms with pictures to illustrate them.
4. Draw an original map to illustrate some of the geographical terms.
5. Make flash cards illustrating geographical terms used.
6. Make a salt-flour map using geographical terms.
7. Divide into two teams. Each player must give the name and the meaning of the geographical term when given a letter by the one who is the leader. The leader says "I". The player answers "island" a body of land surrounded by water." Count points for correct answers.

E. Earth - sun relationship

1. Have children discover the need for the use of guidelines in locating places on a map. Might be accomplished by cutting off the guidelines on a map and having students attempt to locate unfamiliar towns, etc. Then discuss what would make the location of these places easier.
2. Have students locate various countries and indicate in what latitudes they are located. Ask what kind of weather one might find in the country and why.

   Check the latitude of the following and in each case ascertain which of the two would be warmer:

   a. Continental United States or Canada.
   b. Continental United States or Mexico.
   c. Continental United States or Hawaii.
   d. Greenland or Central America.
   e. Argentina or Brazil
   f. Southern Mexico or Southern Chile.
   g. Southern North America or Southern South America.

3. Experiment: Use a globe with a clay man on the point where you live. Darken the room. Use a flashlight to represent the sun. Spin the globe from right to left. Watch how the man moves from daylight to darkness.
4. Let the children act out rotation themselves. One being the sun and another the earth.
5. Locate the Tropic of Cancer and the Tropic of Capricorn.
6. Discover that we use latitude and longitude on a globe to assist us in locating different places.

7. Discover that each line of latitude is the same distance apart and is often called a parallel.
8. Display on the bulletin board a globe-map using black yarn to show lines of latitude. Put a red flag at the equator showing zero degrees latitude.
9. Wrap a string around the globe. Notice that one string never hits another. This is to explain more fully parallel lines. Ask: (1) Does the string make a complete circle around the globe? (2) What happens to all parallel lines of longitude as the string is moved to the North Pole? (3) What happens to the string as we move it toward the South Pole? (4) What do you notice about the string at the equator?
10. Discover that lines of longitude are different from latitude in that they do touch at the North and South Poles. Use a string on the globe again to demonstrate this.
11. Add another globe-map to the bulletin board showing longitude with black yarn. Put a flag at Greenwich, England, to show the point where the zero degrees begins. Explain that this degree of longitude is often called the Prime Meridian.
12. Longitude and latitude together.

    a. On a globe-map work sheet, which shows latitude, longitude, and cities, tell which city is at:

        1) 30 degrees North Latitude 30 degrees East Longitude
        2) 30 degrees South Latitude 30 degrees East Longitude
        3) 60 degrees North Latitude 30 degrees East Longitude
        4) 30 degrees North Latitude 105 degrees East Longitude
        5) 40 degrees North Latitude 105 degrees West Longitude

    b. Quiz

        1) Put an X by the number that best explains the sentence. We measure degrees of latitude from the equator, prime meridian, North Pole, South Pole. We measure degrees of longitude from the equator, prime meridian, North Pole, South Pole. The prime meridian runs: east and west through Greenwich, England; east and west through Sydney, Australia; north and south through Greenwich, England; north and south through Sydney, Australia. Another name for longitude is: parallels, lines, meridians, degrees. Another name for latitude is: parallels, degrees, lines, meridians.

F. Use clay models to demonstrate how hemispheres divide the globe.

G. Miscellaneous map and globe activities.

1. Locate the state of Colorado on United States maps, on world maps and on a globe.
2. Make a community circle to show the expanding community from family to the universe (related if possible to space unit in science).
3. Let children locate on a large bulletin board map the places they have visited in Colorado and/or the United States and means of transportation.
4. Have children locate places where they were born, since many of these children were born outside the Littleton area. (Pins holding flags bearing child's name make good markers.)
5. Have children make simple maps of their street or block or of the playground or their room. Use simple symbols for fire hydrants, fences, big trees, favorite places they play, etc.
6. Locate the United States on a map and a globe. Locate it as to continent, hemisphere, and the neighboring countries of Canada and Mexico and Atlantic and Pacific Oceans.
7. Stress cardinal directions.
8. Stress boundary symbols.
9. Locate other countries. Note that many, like Australia and Canada, have political subdivisions much like our states.
10. Locate other countries which have natural and political barriers between their members parts as we have going to Alaska and Hawaii. (Pakistan, Indonesia, Great Britian.)
11. Find natural boundaries of the United States. Learn how the political boundaries might be arrived at (vote, agreement, wars, purchase, trade.)
12. Locate the continents on a map and on a globe. Cut out shapes of continents for children to identify. Place them in approximate relation to each other on a large piece of blue paper or on a large papier-mache ball.
13. Locate as to Eastern or Western, Northern or Southern Hemisphere. Locate those bisected by the equator; locate those wholly north and south of the equator.
14. Compare the number of countries on the continent of Africa with those in North America or Australia.
15. Discuss Antarctica and its uniqueness as a continent. (No real countries and no native human population.)
16. Locate each continent as to cardinal directions and oceans bordering it.

17. Find where some continents join and learn the geographical term "isthmus."
18. Children can play a game of "What continent am I in?" where they tell the continent, the first letter of the name, and some country or body of water bordering it.
19. Review the concept that directions on a map are determined by the poles.
20. Introduce different map projections to show that north is not always at the top of the map.
21. Discuss cardinal and intermediate directions. Use cardinal and intermediate directions in locating items in the classroom.
22. Use cardinal directions to locate places in relation to the equator, tropics, poles, and circles.
23. Discuss the direction that longitudinal and latitudal lines run. Give a longitude number and a latitude number and have children locate the place on a map.
24. Permit practice in locating places on maps by using the letters and numbers which surround the maps.
25. To eliminate confusion of the terms north and south with up and down, have someone point to north in the classroom, then to up. Have a child walk north. Ask if he can walk up.
26. Play "Simon says." Tell children to face north or south or east or west. When the command is prefaced by "Simon says," they are supposed to turn in the right direction. When it is given without those words, the children who turn are "caught and must sit down. This goes on until all have been caught.

27. Have the children answer the question, "How could you help a stranger in town get from one place to another?" Choose a tourist attraction in Littleton and draw a map of the route to follow. Label the direction each time a turn is made.
28. Discuss possible ways of finding north. On sunny days take the group outdoors at noon to find north by their shadows. Mark a square around the place where one child is standing on the playground and draw lines ending in arrows pointing to the four cardinal directions. Have them mark the intermediate directions next.
29. Play game called "location." Find a place on a map or globe. Tell player where it is, using only latitude and longitude. Give him three chances to find the name of the city, river, or lake. Score one point for yourself if he does not get the answer. Score one point for him if he if he gets the answer. Score two points for him if you give him the wrong latitude or longitude.

30. Divide paper into fourths. Draw what they see when they look north, south, east, and west from their school.
31. Play "weather vane". A leader may say to the class, "The wind is blowing toward the north." The class then turns in that direction. Later, individuals may be called upon to follow directions, such as "Go to the north side of this room. Point to the west on the map. Find the North Pole on the globe. Point to the southeast on the map."
32. To explain the cause of different seasons, use a diagram to show the smallness of the earth in comparison to the enormous sun. Show how the earth receives only a small amount of the sun's energy. Explain that the energy comes to the earth in parallel rays. Demonstrate the intensity of direct rays by holding a flashlight perpendicular to a chalkboard and turning on the light. Draw a circle around the light area. Now slant the flashlight and show how much larger the light area is. Explain that the more direct the light, the smaller the area it has to cover. Consequently, this smaller area is hotter because it is more concentrated. Explain to the children how this ties in with the direct rays on the different parts of the earth at different seasons. Discuss the different seasons and what characterizes each. Show children, through the use of the globe, how when the axis of the earth inclines the Tropic of Cancer to the sun, the Tropic of Capricorn is receiving less sun. Tie this in with the seasons.
34. Use a lamp, chalk orbit, and a globe to show revolution.
35. Question box:

    a. Why do people in different countries wear different clothes?
    b. Why is northern Norway called the "Land of the Midnight Sun"?
    c. Why does a family in Chicago pay higher electric light bills in winter than in summer?

METROPOLITAN STUDY

METROPOLITAN STUDY

I. Overview

During the unit, the students should have experiences using maps, globes, and atlases. The encyclopedia and other reference material could be consulted and skills necessary for their use taught. Children should gain experience in preparing and presenting oral and written reports. Group work should be an integral part of the unit, and skills pertaining to more effective group participation should be introduced and practiced. The students probably will have completed a unit on the community in the third grade. This unit should be approximately four weeks in length. The total weekly allotment of time would be about two hundred minutes, broken up into time periods deemed most convenient by the individual teacher.

The unit provides an opportunity for the student to investigate several metropolitan areas. However, since the students reside in a suburb of metropolitan Denver, it is to be understood that a greater length of time will be devoted to that particular city. A comparison between Denver and another metropolitan area is one possible approach to the unit.

Of necessity, the teacher must exercise selectivity as it is not possible nor advisable to present all of the material in the content section.

II. Objectives

A. To recognize that the neighborhood is not isolated from the larger urban area
B. To develop understanding of the multiplicity of factors which determine the location of cities
C. To develop knowledge of the historical development of metropolitan Denver
D. To develop an understanding of the various ethnic groups in metropolitan Denver
E. To recognize the contributions of the various ethnic groups to the development of Denver
F. To develop an awareness that cities are constantly changing in structure and that these changes affect all aspects of community life.
G. To familiarize students with various forms of local government
H. To recognize points of interest in Denver
I. To develop an understanding of problems of a metropolitan area

III. Content

(The material included below on Littleton should have been studied at the end of the third grade. It should be reviewed in the depth deemed necessary by the teacher.)

A. Littleton

1. Where is Littleton located?

    a. Littleton is 92 feet higher than the mile-high city, Denver, which is just ten miles north.
    b. Littleton is the county seat of Arapahoe County.
    c. Arapahoe County is 72 miles long and 12 miles wide.

2. What should children understand about the historical development of Littleton?

    a. Named for Richard Sullivan Little, the man who in 1862 homesteaded what is now the Main Street area. Frontier Littleton remained a small farming community until the 1890's when it began to be recognized as a residential area.
    b. It was only 2½ miles north of Littleton, on Little Dry Creek, where gold was found in such paying quantities that it instigated the Pikes Peak gold rush in 1858.
    c. Littleton became incorporated in 1890, and in 1902 it was designated as the temporary county seat of the newly created South Arapahoe County. It was made the permanent county seat in 1904.
    d. Littleton, for many years, was the center of a fertile, irrigated agricultural area, where livestock, sugar beets, poultry, and wheat were the main supports of the city's business and commerce. Now Littleton is a residential suburb and industrial center. Its location in the metropolitan area brought large industrial plants to Littleton and its environs in the last 15 years and rapid population increases. The present estimated population of Littleton is over 19,000. In January, 1964 the estimated population of the city was 17,000 compared with 13,670 at the United States Census of 1960 and only 3,378 at the 1950 census.
    e. Today the Littleton area is the location of many outstanding manufacturing and research plants. The list includes the Marathon Oil National Laboratory, the Martin Company plant, the American Coleman Motor Company plant, the Red Comet Fire Extinguisher Company, the Bingo King plant, the Norgren Company, the Shuttercraft Company, the O.K. Rubber Welders plant, the Electron Corporation, and others.

f. Littleton is located within the boundaries of School District Number Six, which serves a population of approxi~~mately~~ 50,000 people. In 1965 the citizens voted to establish a junior college in Littleton in cooperation with the Sheridan School District to the northwest It is located in the area formerly occupied by West School. It is known as Arapahoe Junior College.

g. As a new community, Littleton has few historic markers. Some places of interest might be the first school, the train depot, the county court house, Arapahoe County Fair Grounds, and Centennial Race Track.

h. One of the famous people from Littleton is Ralph Moody - author of Little Britches and Man of the Family and for whom the National Little Britches Rodeo finals was named, spent his boyhood in Littleton. The Rodeo held annually in mid-August at the Arapahoe Fair Grounds is for girls and boys 8 to 17.

B. Denver

1. Historical development of Denver:

a. Long ago migrating Indians used the banks of the South Platte River and of Cherry Creek as a camp and watering grounds.

b. Gold seekers, traders, trappers, and settlers used the spring, later known as Baker Springs, as a gathering place. A marker indicating the site of this spring can be found near the east end of the West Colfax viaduct.

c. Two small trading settlements merged to become the settlement of Denver in 1858. Auraria and Denver were the names given to these settlements which later became the settlement of Denver. The name was derived from the territorial governnor of the Kansas Territory of which the Colorado region was then a part.

d. Construction of the first cabin is said to have been nearly five miles to the south and west of the present state capitol near the South Platte River. A replica stands today near Warren Avenue.

e. Denver became a terminal for three early day trails: the Santa Fe Trail, the Platte River Trail, and the Smoky Hill Trail.

f. The first stagecoach for passenger and mail service arrived in 1859. Prior to that, the early day travel into and out of Denver was by foot and covered wagon.

g. Also in 1859 the first school was begun by O. J. Goldrick An elementary school has been named for him. The first issue of the Rocky Mountain News also was published at this time.

h. In 1858 the discovery of gold led to the "Rush to the Rockies" and "Pike's Peak or Bust." Prospectors, miners, traders, settlers, and the attendant merchants and businessmen invaded the area.

i. Denver had little gold but became more the supply and transportation center for the region in which mining became the major activity.

j. As the result of the continued growth of the area, Denver was selected to become the territorial capital.

k. The first of two railroads came into Denver in 1870. One was built from Cheyenne south to Denver to join the already established continental railroad. The second came east from Kansas City.

l. Gold and silver was converted to coins as a private enterprise. This was the beginning of Denver as a banking and financial center. With Denver as the center of private minting activity, the development of a branch of the United States Mint was a logical development.

m. Colorado was admitted to the Union on August 1, 1876. The term "Centennial State" was given to the state because it was admitted one hundred years after our nation became independent.

n. During the 1890's, construction began on the state capitol building, and the Denver Post became the second major newspaper.

o. Emily Griffith established Opportunity School to serve the needs of the people unable to complete their education in regular schools. This was in 1916.

p. Lowry Field was named for the first Colorado military air casualty during World War I.

q. Denver became a training and defense manufacturing center during World War II. Many women became employed for the first time. This began a trend which is accelerating today.

r. After World War II, Denver and the metropolitan area have experienced an almost explosive type of growth, notably:

    population
    industry
    convention and tourist center
    construction: highways, homes, apartments, industry
    transportation
    rebuilding and new appearance of the skyline, expecially downtown Denver

2. Some important persons who have contributed to the growth of Denver:

   a. Henry C. Brown - Early real estate and subdivision developer; former owner of the triangular cow pasture on which the Brown Palace Hotel stands. In 1868 he donated the two city blocks on which the state capitol was built.
   b. H. A. Tabor - Silver King. He struck it rich in Leadville by mining silver. After moving to Denver as a millionaire, he built the Tabor Opera House (no longer standing) near 16th at Curtis.
   c. John Evans - He was appointed second territorial governor of Colorado by Abraham Lincoln in 1862. He was the founder of the University of Denver.
   d. Emily Griffith - She felt that adults, too, should have the privilege of learning. She opened the Opportunity School in Denver. It is now a part of the Denver Public Schools and furthers the education of approximately 50,000 persons each year.
   e. Florence Sabin - Dr. Sabin was a scientist, medical researcher, doctor, and humanitarian. She was the first Coloradoan to be honored by designation to Statuary Hall in the Capital in Washington D.C. She was chosen one of the twelve greatest doctors, one of the world's twelve greatest women in all fields, and was called the world's greatest living woman scientist during her lifetime.
   f. Eugene Field - Field is remembered for his children's poems. His home in Washington Park houses the Eugene Field Branch of the Denver Public Library. We have a school in Littleton named for him.
   g. David H. Moffat - He tried to bring the transcontinental railroad through Denver instead of Cheyenne, Wyoming, but it was not until 1870 that he, along with Walter Cheesman, succeeded in routing the Union Pacific Railroad to Denver. Moffat's dream of constructing a railroad through the mountains became an actuality with the construction of the Denver and Salt Lake (or Moffat, as it was known) Railroad in 1903. However, the Moffat Tunnel was not completed until 1927, fourteen years after his death. The Moffat Tunnel serves two needs -- that of rail traffic and that of carrying part of the water supply for Denver.
   h. Robert W. Speer - In 1904 he became Mayor. He developed the system of parks, parkways, the Civic Center, and the idea forDenver Mountain Parks.

3. Much of the history of Denver, Colorado, and other places in the United States can be learned from a study of the names of Denver streets. Our streets have been named for:

   Indian tribes
   Flora and fauna
   National and state leaders
   Territorial and state leaders
   Important pioneers and settlers
   Cities, colleges, universities, and states

4. What should children understand about Denver as a large city community of which Littleton is a part?

   a. All people in Denver are dependent on other people in Denver and other communities for goods and services which provide for the basic needs -- food, clothing, and shelter.
   b. Denver is a large city community which depends on other Colorado communities.
   c. Denver is a community in which people move about from section to section. New residents come from many places both near and far.
   d. Denver is surrounded by smaller communities which are not part of the city. These are the suburbs. Littleton is one of these suburbs. The city of Denver and its suburbs is called metropolitan Denver.
   e. The city of Denver and the suburbs form another type of growing community called a metropolis. A metropolis is a collection of different communities grouped together for the following reasons:

      1) Growth through population increase
      2) Extension of human activity
      3) Size and proximity
      4) Common interests and needs
      5) Roads and highways
      6) Newspapers, radio, television, telephone
      7) Requirements for water and sewage disposal
      8) Production and distribution of goods and services and other social activities basic to humans

   f. Metropolitan Denver is the center for varied activities which affect the lives of many people in Colorado and neighboring states.

5. Points of interest in the Denver Area

   a. United States Mint: one of two gold repositories
   b. Denver Art Museums
   c. Denver Public Library
   d. Civic Center - flanked by City and County Building and state capitol
   e. State Capitol
   f. State Historical Museum - model of early Denver
   g. City Park - zoo, Museum of Natural History, lake, electric fountain, golf course, other recreational facilities
   h. University of Denver, Colorado Woman's College, Loretto Heights College, Regis College
   i. Mountain parks belonging to the City and County of Denver - Theater of the Red Rocks, Lookout Mountain, Echo Lake, Bergen Park, Genesee Park, and Winter Park.

6. Government: Denver functions as both a city and county. A constitutional amendent allows the people to adopt laws that have force above most state laws within the city limits. Denver has a mayor-council form of government.

7. It is a distribution and wholesale center, serving about one quarter of the United States.

8. The Denver Union Stockyards is one of the most important meat-handling centers in the country. It also has one of the country's largest sheep markets.

9. The city's leading industries include flour and grain milling, meat packing, and the manufacture of mining equipment, rubber, and aircraft parts and equipment.

10. Stapleton airfield is one of the most modern in the United States.

11. It has more than 110 elementary and high schools.

12. Several universities and colleges are located in Denver such as University of Denver, Iliff School of Theology, and Loretto Heights College.

13. Denver operates a chain of twenty mountain parks.

C. New York

1. It is made up of five boroughs. Manhattan, the Bronx, Queens, Brooklyn, and Richmond. Together the boroughs encompass approximately 365 square miles.
2. It ranks with Tokyo, Shanghai, and London as one of the world's four largest cities.
3. Manhattan Island was purchased by Peter Minuit, the governor of the Dutch West India Company, from the Indians with beads, trinkets, and cloth worth about $24. Today, the land and buildings are valued at approximately $29,000,000,000. One million, five hundred thousand people live there. Liberty Island, which is situated just off of the lower section of Manhattan, is the location of the Statue of Liberty.
4. New York has more people from other lands than any other city in the world. People from sixty nations are living within its boundaries. It is said that there are more Jewish people in New York than in Israel; almost as many persons of Italian descent as in Rome, Italy; almost as many persons of Irish descent as in Dublin, Ireland. More Negroes live in New York than in any other United States city.

5. New York has the largest school system in the world. There are more than 800 public schools with approximately one million pupils.

6. It is famous for its towering skyscrapers. The Empire State Building is perhaps the most well known. It was erected in 1931 and rises 102 stories.

7. New York's transportation system is a vast and complicated one. Terminals, airports, bridges, and tunnels for the millions of passengers and millions of tons of freight which are handled daily by trains, buses, trucks, ships, ferries, and planes. Grand Central Station at 42nd Street and the Pennsylvania Railroad terminal on Seventh Avenue handle a total of more than 500,000 passengers daily. Bridges are extremely important to the transportation system. The Brooklyn Bridge crosses the East River in downtown Manhattan. It was opened in 1883. The George Washington Bridge spans the Hudson River. New York has developed an impressive arterial highway system to speed travel. The Brooklyn-Battery Tunnel is the longest underwater tunnel in the United States. La Guardia Airport is one of the busiest in the world. New York International Airport at Idlewild was renamed the John F. Kennedy International Airport. About two hundred thirty miles of subway stretches beneath the city.

8. New York City is governed by a charter which was adopted in 1961. The mayor, who is elected for a four year term, is the chief executive. He may appoint two or more deputy mayors. Councilmen who are also elected for a four year term, legislate the city's laws.

9. The New York Public Library, the largest public library in the country, has at least 80 branches, and over 7,000,000 volumes.

10. The theater is another aspect of New York. The reception a play receives in New York usually determines its success or failure. Because of its many theaters, it is sometimes called the "Entertainment Capitol of the World."

11. New York has some of the largest and most famous newspapers in the world. Almost every large book-publishing house in America has offices in New York. The four largest broadcasting networks have their headquarters in New York City.

12. Central Park contains 840 acres and one of the best known. The Bronx Zoo contains animals from every country in the world which can be seen in reproductions of their natural surroundings.

13. The Port of New York includes more than 1,600 piers, wharves, and bulkheads on its 650 mile-long waterfront. New York is the largest export center in the world. The New York Customs Office handles almost half of the overseas commerce of the United States.

14. The Wall Street financial district, where the New York Stock Exchange and several of the great commercial houses and banks are located is an international symbol of financial affairs.

15. The largest industry in New York City is the garment industry.

16. New York publishes three-fourths of all of the nations books.

17. The city conducts the largest wholesale grocery business in the United States.

D. Other cities which might be studied are Detroit, Tokyo, Chicago, London, and Washington D.C.

IV. Activities

A. Motivational

1. Presentation of a bulletin board with pictures of Denver and other Metropolitan areas.

2. Films:
"Small Town Editor: Littleton." Available - Littleton Independent; "Colorado: High Country History; City as a Playground", F113; "What is a City," F289 - Available - School District Six, Audio-Visual Services. "The Changing City." Color; rents for $1 from the Denver Public Library; can be secured through the Littleton Public Library. (Order through AV department all AV rentals) Television - KRMA Channel 6 "Living in Denver" series. See KRMA schedule for related subjects.

3. Oral questions to determine knowledge and understanding pupils already have.

4. Open a discussion with questions such as: Why may people gather at a certain spot and build homes there? Why do some settlements grow to be metropolitan areas and others remain small? Why are many cities growing faster than the cities they are near?

5. Read Sandburg's poem "Chicago" and "Clean Curtains" to provide a springboard to a discussion of aspects of city life.

6. Locate metropolitan cities on a world map.

B. Developmental

1. Work on a mural depicting the development of Denver.

2. Present dramatizations of Denver history.

3. Construct dioramas on Denver history.

4. Conduct trip to State Museum to see the displays of furniture, clothing, equipment, and history of Denver.

5. Have students research background on historical mansions, etc. The information may later be shared with their classmates on a bus trip of the Denver area.

6. Make a large outline map of the Denver area.

7. Develop a movie strip of a trip of the Denver area.

8. Arrange an exhibition of articles used by pioneers.

9. Make a silhouette or a mural of the Denver skyline.

10. Have each student develop a booklet about Denver of a similar metropolitan area.

11. Visit the Botanical Gardens.

12. After a study of the Denver Metropolitan area, have groups of students study important metropolitan areas and make a comparison of the other cities with Denver. Areas for consideration as topics might include reason or reasons for its growth into a metropolitan area, ethnic groups, and problems of the city and possible solutions.

13. Invite notable metropolitan leaders to speak to the class regarding ethnic contributions.

14. Contact Mr. Robert Quarie at the State Historical Museum for information regarding ethnic groups and their historical contributions.

15. Write a story about an imaginary city. Devise reasons for its growth. Explain why your city developed as it did. When the student has finished his story, have him draw a map of his imaginary city and label the different areas in it.

16. Take a census of the class to ascertain how many members of your class have moved from the East to the West - from the North to the South etc.

17. Discuss questions such as the following:

    a. When people move from the city to the suburbs, what changes often occur in the areas where these people once lived?
    b. For what purpose was the land on the outskirts of the city used before it became a suburb? Why was it necessary that the land be used that way? Why is it not necessary now?
    c. Suburbs are frequently a number of miles from the part of the city where people work. How is it possible for people to live a great distance from their work without having to spend excessive time traveling back and forth?

   d. Why should a city legislate laws?
   e. How does the city secure an adequate food supply?
   f. Why are businesses usually located in or near cities?

18. Encourage students to locate newspaper and magazine articles which relate to problems of metropolitan areas.

19. Conduct a bus trip to see Civic Center and the capitol.

20. Invite speakers who are representative of the various ethnic groups.

C. Culminating

1. Display notebooks, antiques, dioramas, and other materials developed for the rest of the student body to view.

2. Make a presentation of a skit on early life in Denver or Littleton.

3. Write short stories stressing impressions of selected aspects of Denver or other metropolitan areas.

4. Have students provide at least one reason as to why people might move from the farm to the city, from the center of a city and the suburbs, and from the suburbs to the city.

ISLAND REGIONS

ISLAND REGIONS

I. Overview

This unit is concerned with developing an understanding of the way people live on islands, both in the past and present. Of course, geographic concepts should also be stressed as they aid in understanding how the inhabitants adapted to their environment. Japan will be studied in depth and if desired any of the following islands may also be studied --Phillipines, Aleutians, Galapagoes, Falkland Islands, Canaries, Iceland--as a comparison.

This unit is designed for a period of approximately four weeks.

II. Objectives
- A. To become cognizant of tropical and temperate islands
- B. To become cognizant of the cultures of island peoples
- C. To develop an awareness of the occupations of island cultures
- D. To become cognizant of the role these islands have performed in world affairs

III. Content
- A. Islands may have:
  1. A certain degree of protection or isolation from foreign attacks, though this is less and less significant with modern military technology. In the past, this kind of protection through insularity was sometimes important, as in the case of Great Britain.
  2. A better development of navigation and trade, owing to a greater dependence on sea-borne commerce. However, this is not an automatic advantage. The natives of the island of Tasmania were not noted navigators.
  3. Border disputes are less likely than in the case of peoples dwelling on the mainland. Of course, where different groups live on the same island, they may fight each other (e.g. Scots versus English, Turks versus Cypriot Greeks.)
  4. Small islands are neat, well-bounded units for various kinds of study. This is especially true for botanists and zoologists, but also for geographers.'
- B. Japan
  1. Main physical features of the island
     - a. Mountains
       - 1) Seven-eights of Japan consists of mountains
       - 2) The highest mountain is Mount Fuji
       - 3) One mountain range is along the coast. (The peaks rise as high as 10,000 feet.)
       - 4) Another range runs along the Japan Sea. (The peaks rise as high as 6,000 feet.)
       - 5) A third range runs east and west, connecting the other two.
         - a) This is the highest range.
         - b) They are often called The Japan Alps.

6) It has over 200 volcanoes most of which are either extinct or dormant.
b. Coastlands
1) The coast is deeply indented.
2) The coastline measures approximately 16,665 miles.
3) Along the shores are sandy beaches, muddy flats, and rocky cliffs.
4) Lava from volcanoes forms some parts of the coastline.
5) The best harbors are on the Inland Sea. (Yokohama, Kabe, and Osaka are three of the busiest)
c. Plains and lowlands
1) The plains and lowlands have rich soil.
2) Many people reside in the flat part of the country.
3) Plains are relatively small in size and comprise only one eighth of Japan.
4) One of the most important is the Kanto Plain which is on the island of Honshu.
d. Rivers
1) They frequently bring floods.
2) They are not useful for transportation because they are short, shallow, and abundant with rapids.
3) They are useful for watering crops in the lowlands and also are harnessed to provide hydroelectric power to run factories.
4) One of the longest is the Ishikari on the island of Hokkaido.
e. Nearly fifty per cent of Japan's area contains forests.
2. Size and Location
a. It consists of several small islands and four larger ones.
1) Honshu (referred to as the "Mainland")
2) Hokkaido
3) Kyushu
4) Skikoku
b. Japan is a little smaller in area than our state of California.
c. It is approximately fourteen hundred miles from one end of the island chain to the other.
d. Approximately ninety-four million people reside on the islands. (More than half as many people as the United States.)
3. Honshu
a. It is the largest of the islands.
b. Tokyo, the world's largest city, is located on this island.
1) It is the capital of Japan.
2) Approximately twelve and one-half million people live in the city.
4. Hokkaido
a. It is the largest island of Japan.
b. Although it is the second largest, only a few people reside here because it is situated farther north and is much colder.

5. Kyushu and Shikoku are small in size and situated close together, near the southern tip of Honshu. (The Inland Sea separates Shikoku from Kyushu.)
6. Climate
    a. Japan receives warm, steady, monsoon winds from the south Pacific Ocean and is washed by the warm Japan or Black Current.
    b. Hokkaido has cold winters like our northern states.
    c. Winter in the southern islands is similar to winters in our southern states.
    d. There are four seasons.
        1) The summer season begins in June. (This is the time when it rains most. The rains are caused by the summer monsoon winds. The winds also make the weather hot and sultry.)
        2) In autumn the days are pleasant but colder. (During September and October strong winds blow in from the Pacific Ocean, bringing heavy rains. These storms of rain and wind are called typhoons.)
        3) In most of Japan, winter lasts from November through February. (In the southeastern part, winter is not very cold. High mountains keep out the cold winter winds. Little or no snow falls. In some places the weather is warm enough for farmers to grow grain.)
        4) The spring season lasts from March through the early part of June. (A south wind blows over the islands again making the weather warm again.)
7. People
    a. No one knows exactly when or how the first settlers came to Japan.
    b. It is possible that they have been a people Ainu. (It is believed that great numbers of them moved from Siberia long ago.)
    c. About two thousand years ago the Ainu lived on all islands of Japan.
    d. Later groups arrived from Asia and forced the Ainu to northern Hakkaido.
    e. Not many Ainu are living today, but they did leave their mark on Japan. (Mount Fuji was named by the Ainu. It was the name of the Ainu goddess of fire.)
    f. For hundreds of years, people continued their migration to Japan from Asia. The Japanese people of today more closely resemble these people than the Ainu.
    g. Most Japanese have straight black hair.
    h. Most Japanese are not very tall.
    i. Their eyes are dark brown.
        1) The skin on the outside of their upper eyelids is pulled more tightly than ours which gives them the look we think of as Oriental (positioning of the epicanthic fold which gives the illusion of slanting eyes.)

j. Their skin is somewhat darker than Caucasians.
8. Occupations and industries
a. Farming
1) Nearly half of the people are farmers.
2) Although most American farmers live on their land, in Japan, land that can be farmed cannot be spared for houses.
3) Farm-houses are grouped together in a small village, and the family walks or rides their bicycles to their fields or rice paddies.
4) Crops are also raised on terraces cut into the sides of mountains.
5) Two and a half acres is the average size.
6) About eight out of every ten farmers own the land.
7) Much of the work is still done by hand.
8) About half of the farms have small tractors or machines.
9) Low banks of soil separate the farms.
a) These are used as bicycle paths.
b) They are also used for planting mulberry trees and soybeans.
c) They also hold back the water when the rice paddies are flooded.
10) Rice is Japan's biggest and most important crop.
a) It is the main part of almost every Japanese meal.
b) Japan buys some of its rice from California.
11) Few farm animals are found in Japan.
b. Forests and lumbering
1) Roots of the trees hold water and help prevent flooding.
2) Oak, beech, ash, chestnut, spruce, and birch are found in Japan.
3) Bamboo grows in the southern part of the islands.
4) The government owns one third of all the forest land.
5) Japanese are trying to conserve their forests.
c. Fishing
1) Approximately one third of the people earn a living by fishing.
2) It is the leading fishing nation of the world.
3) More than half of Japan's fish are caught within a few miles of shore.
4) Some of the fish caught are mackerel, sardines, and herring.
5) Much fish is eaten in Japan, but much more is canned and sold to other countries.
d. Mining
1) Japan's most valuable mineral is coal.
2) It is used to make electric power.
3) Japan has enough gold, silver, zinc, platinum, chromite, and magnesium to meet its needs.
4) It buys scrap iron ore from the United States.

    - 5) Sulphur, limestone, and salt are plentiful.
- e. Manufacturing
    - 1) Osaka, Tokyo, Yokohama, Nagoya, and Nagasaki are all great manufacturing centers.
    - 2) Japan leads the world in building freighters and tankers.
    - 3) The Japanese are well known for their skill in making cameras, clocks, television sets, X-ray machines, and transistor radios.
    - 4) Although Japan raises no cotton at all, it leads the world in making and selling cloth and thread.
- f. Silk
    - 1) Silkworms are raised in the homes of farmers.
    - 2) They are taken to the factory when they reach the cocoon stage.
    - 3) The cocoon are heated in ovens.
    - 4) Moving belts carry them through steam and hot water to loosen the threads. Then the threads are wound on spools.
    - 5) Machines spin the threads into bigger threads.
    - 6) Finally the threads are woven into cloth.
- g. Crafts
    - 1) The making of cloisonné is one of the crafts.
        - a) The piece to be decorated may be a dish or a vase.
        - b) First a design is drawn on the metal dish or vase.
        - c) Wires are laid over the design and heated.
        - d) Shiny paint is spread between the wires.
        - e) Then it is baked for a while in a very hot oven.
        - f) These steps are repeated four times.
    - 2) Pottery making is one of the oldest of Japanese crafts.
    - 3) Woodcarving is a craft requiring much skill.
    - 4) Dollmaking is another favorite craft.

9. History
    - a. Warrior lords (samurai)
        - 1) Each clan was headed by a chief who was believed to be a god.
        - 2) People in the chief's family held all the important positions.
    - b. Finally one group became more powerful. (Their chiefs became the rulers of Japan and members of that family group have ruled Japan since the sixth century.)
    - c. The shoguns (soldier-rulers) of the Tokugawa family finally stated that no one from another country could trade with Japan. (Closed-door policy)
        - 1) They divided the people into classes. (Soldiers, farmers, craftsmen, and merchants)
        - 2) No one could move from one class to another.
    - d. Commodore Perry brought a letter from the President of the United States, asking Japan to trade with other countries. (1853)

e. In 1854, the United States and Japan became friends and began to trade.
f. Emperor Meiji (1867) came to the throne at the age of 15 years. However, he became a powerful emperor.
g. In 1889, Emperor Meiji set up a new form of government.
  1) People had some part in lawmaking.
  2) Finally Maiji passed away. Japan began to take over new lands.
h. Japan won wars against Fusia and China.
i. During World War I, Japan took lands that had belonged to Germany.
j. On December 7, 1941, Japan attacked Pearl Harbor, Hawaii.
k. The United States then declared war against Japan which lasted until August 14, 1945.
l. Japan lost the war and two of its most important cities were destroyed by atomic bombs.
m. During the years after the war Japan was governed by the U. S. Army.
n. In 1956, Japan became a member of the U. N.
o. Today, it is again one of the great countries of the world. (Constitutional monarchy)

10. Transportation and Communication
  a. Japan has few freeways or highways. (Mountains make road building difficult. Highways would take up needed farm land.)
  b. Trains and buses are always crowded.
  c. Planes, ships, and bicycles assist in transporting people from place to place.
  d. The cities of Tokyo, Osaka, and Nagoya have subways and elevated trains.
  e. Monorails have been built to help with the transportation problem.
  f. Letter writing in Japanese is more time consuming. Therefore, sending telegrams is almost as common as the sending of letters is here.
  g. The government has charge of the telephone, the telegraph, and the cable systems.
  h. The newspapers have much less advertising than ours.
  i. About one half the families own television sets.
  j. The Japanese make more motion pictures than any other people in the world.
  k. Language
    1) Japanese writing came originally from China.
    2) The Japanese developed a syllabic system of their own in addition to the standard Chinese characters (called kanji).
    3) The syllabaries (there are two) called kana, are used for marking verb-endings, conjunctions, etc. and for writing foreign words for which there are no Chinese characters - like baseball-represented in kana syllables as besubaru.

    4) Though there are thousands of Chinese characters or kanji symbols, the two kana syllabaries have only 50 symbols each.
    5) Sometimes the Japanese language is written with English letters. (romaji)

11. Food
    a. Rich and poor alike eat rice every day.
    b. A favorite dish, made with rice and raw fish, is sushi.
    c. Little cakes called mochi are served at New Year's.
    d. Fish is an important food and provides protein. (They may serve the fish raw, cooked, dried, or salted.)
    e. Most Japanese vegetables are young, small, and tender.
    f. Daikon, a kind of radish, and seaweed are also eaten.
    g. Soup is served with most meals. (Miso soup is made from soybeans.)
    h. Each person in Japan eats about nine pounds of meat a year in comparison with the average of 160 pounds in the United States.
    i. Green tea is used more frequently than black. (A Japanese girl may spend two years learning the tea ceremony.)
    j. Most meals are served on a low table.
        1) Members of the family sit on the tatami around it.
        2) The hibachi may be brought in and the food cooked beside the table.
        3) Most chopsticks are made of wood. Knives and forks are not used unless American food is served.

12. Clothing
    a. Very old people still wear the type of clothes their ancestors wore.
    b. Children are frequently dressed in clothing similar to ours.
    c. Almost everyone sometimes wears the styles of their ancestors.
    d. Kimonos, although still worn on holidays by almost everyone, are not worn in factories or to work because the sleeves hinder the expediting of their work.
    e. Women who work in the fields wear mompei-baggy pants, tied at the ankles.
    f. Geta are wooden clogs with raised platforms. (The platforms keep the feet away from the wet ground.)
    g. Zori are like sandals and are worn when the ground is dry.

13. Pets
    a. Most Japanese children do not have pet dogs or cats.
    b. They have small pets such as crickets, fireflies, and goldfish.
    c. Japanese like the sound of the crickets' chirping.

14. Music
    a. Japanese music sounds somewhat different from ours as they have five tones and we have seven.
    b. Most instruments were brought to Japan from China, Korea, and India.

c. The koto is about the size and shape of a harp. (It has 13 strings on a wooden frame. The player plucks the strings with picks worn on the thumb and first two fingers. The koto player does not sit in a chair to play. The koto is placed flat on the floor, and the player kneels in front of it.)

d. The biwa is another instrument. (It is about four feet long. Its body is shaped like an egg, but it has a long curving neck. The player does not use a pick but plucks it with his fingers.)

e. The bamboo flutes are often heard in the streets of Japan. (The flute is about 20 inches long and is called a shakuhachi.)

f. A favorite instrument is the samisen. It resembles our banjo. It is about three feet in length and is played with a pick. A samisen has only three strings.. (Banjo has 5.)

g. Many Japanese children are taking violin and piano lessons now.

h. Singing began in Japan as poetry.

i. Folk music is heard at festivals and during plays in the theaters.

15. The theater
    a. All plays in Japan have dancing in them.
    b. Stage plays from the past can still be seen today. (Bugaku, the Noh, the Bunraku, and the Kabuki.)
    c. The Bunraku is a puppet play.
        1) Japanese puppets are much larger than ours. (They are almost as large as the people who work them.)
        2) A head man and two helpers work the puppets. These men are visible to the audience as there is no curtain to conceal them.
        3) The head man wears brightly colored clothes and his helpers wear black hoods and robes.
        4) While the puppets act, a man called a chanter, speaks the lines of the play.
        5) Another man plays a samisen as background music.
    d. In Kabuki plays, live actors perform like puppets. (They move very stiffly.)

16. Poetry
    a. Most Japanese poems are short.
    b. A favorite type is haiku.
        1) It is only three lines long.
        2) The first line has five syllables.
        3) The second has seven syllables.
        4) The third has five.
        5) Each haiku has something to do with a season of the year.
    c. Another type of poem is the tanka which has five lines. (The first three lines are like a haiku and the fourth and fifth have seven syllables.)

d. An example of a tanka written by Minamoto no Yorizane - a great poet who lived nine hundred years ago:

> The day has ended
> And the visitors have left -
> In the mountain village
> All that remains is the howl
> Of storm winds from the peak.

17. Education
    a. One hundred years ago, there were no public schools in Japan.
    b. Meiji felt it was important for people to learn to read and write, and his government began to build schools and train teachers.
    c. At first, not all parents wanted to send their children, and they were kept at home to take care of family work.
    d. Later school laws were passed that said children must go to school for 6 years. (Girls were not permitted to attend college.)
    e. Americans encouraged the Japanese to change their schools so that everyone could attend high school. (Girls should be permitted to attend college.)
    f. In most schools, children wear uniforms
18. Government
    a. Japan's congress is called the Diet.
    b. The Diet consists of the House of Councillors and the House of Representatives.
    c. The real head of the government is the prime minister. (He also has a cabinet.)
    d. The two most important parties are the Liberal Democrats and the Socialists.
19. Houses
    a. Most of them have wooden sides and paper windows.
    b. Sometimes outside walls are made of mud mixed with rice straw. (Then the walls are covered with a smooth coat of plaster.)
    c. A wide roof, usually of tile or straw protects the wood, plaster, and paper windows.
    d. Most houses are built up on stones to prevent the floor boards from becoming damp.
    e. The rooms are separated by movable walls which slide back and forth easily.
    f. Most homes have less furniture than we do.
    g. The family sleeps on pads on the floor.
    h. Anyone entering a house in Japan leaves his shoes at the door.
20. Festivals and holidays
    a. May 5 - Children's Day (The Doll Festival used to be on March 3 and Boys' Day used to be on the fifth of May. Now in most places, they are held the same day.)

b. Each month there is a festival for some kind of flower.
c. The Star Festival is held on July 7.
d. The Moon Festival occurs in the fall.
e. Small festivals are held each month at Buddhist temples and at Shinto shrines.
f. One of the most important is the Feast of Lanterns. (It lasts July 13, 14, and 15. On these days each family does special honor to those who have died.)

IV. Activities
A. Locate maps and pictures of Japan.

B. Collect books and bulletins about Japan and have a bookshelf on Japan in the classroom.

C. Examine Japanese dishes, toys, fans, prints, works of art.

D. Invite a Japanese or American who has lived in Japan to speak to the class and to answer questions.

E. Exchange letters, photographs, stamps, artwork, or albums with Japanese children.

F. Construct a small Japanese house.

G. Enact through rhythms and pantomime some of the legends of the Japanese people.

H. Learn Japanese song and dance combinations using fans or parasols.

I. Learn to write some Japanese characters with a brush.

J. Learn to write your name in Japanese.

K. Cut and fold paper objects as Japanese children do (origami.)

L. Construct miniature Japanese gardens in dishes.

M. Learn a few words in Japanese:
1. Oha yō gozaimasu - Good morning
2. Kon-niche-wa - Hello
3. Ikaga desu ka - How do you do?
4. Dō-zo - Please
5. Arigatō - Thank you
6. Sayonara - Goodbye
7. Dōit ashi-mashite - You are welcome

N. Give group reports based on reading by means of exhibits, discussions, puppets, or dramatizations.

O. Invite parents and let them see and hear some of the work about Japan.

P. Write Japanese poetry (Haiku).

Q. Make a Japanese notebook.

R. Fish bowls.
   1. Materials - white construction paper, cut one end to make 9 x 10½". Black or dark blue construction paper, 9 x 12", uncut. Crayons, watercolors, thread.
   2. Draw water scene on white construction paper putting in many colorful mosses, fish, crabs, starfish, etc.
   3. With blue, green, or both, make wash to go over the underwater scene.
   4. Cut about six fish, all sizes and shapes from construction paper about ½ to ¼ inch long. Color to suit.
   5. From black or blue construction paper 9 x 12 fold and cut large fish bowl.
   6. This is glued to edges of water scene and fish are hung from threads from inside bowl at various lengths.

S. Underwater salt scenes.
   1. Materials - rock salt, watercolors, crayons, tagboard.
   2. Draw underwater scene making many seaweeds and plants.
   3. Color everything with crayon except plants, seaweed, etc.
   4. Use rock salt to glue where plants are.
   5. Use watercolor of greens and other to color over rock salt.

T. Shell pictures.
   1. Materials - oyster shell, construction paper, watercolors.
   2. Make a sketch of underwater scene or island and beach scene.
   3. Wash oyster shell and let dry. Glue on picture where shells may be found.
   4. Color picture with watercolors.
   5. Oyster shell may be purchased at feed store.

U. Have each student compare another island or island group with Japan, following the outline presented under the content section. Suggested islands are as follows: Canary Islands, Phillipine Islands, Aleutian Islands, Galapagoes Islands, Easter Island, Tahiti.

V. Ask questions similar to the following:
   1. Why are crickets often favorite pets in Japan?
   2. Why are Japanese pets generally small?
   3. Why is it harder for people from other countries to write Japanese than it is to speak it?

   4. Can you think of any Japanese words that have become a part of our language?
   5. Why might it be harder for us to travel in Japan?
   6. Why did the shoguns rank farmers almost as high as soldiers?
   7. Is any one food as important to us as rice is to the Japanese?

8. Why is sulphur plentiful in Japan?
9. Why are items made by hand more highly prized than those made by machine?
10. Do we have any special flower festivals in our country?
11. What are some differences between a fencing match in the United States and one in Japan?
12. Do you think you would like to go to a Kabuki play? Give reasons for your answer.
13. Why is music important to people of all countries?

W. Plan a menu for a Japanese family for one day.

X. Collect and display pictures of American and Japanese homes.

Y. Write a tanka. (type of poem)

Z. Make a list of some items which the United States buys from Japan and vice versa.

V. Suggested materials
  A. Films
    1. "Japan's Art from the Land" F265
    2. Free films and film catalogue may be obtained by writing: Japan National Tourist Organization, 651 Market Street, San Francisco, California 94105.

  B. Filmstrips
    1. "The Coral Reef"
    2. "The Surf"
    3. "Shellfish of the Seashore"
    4. For other filmstrips, see first grade.

  C. Materials
    1. For a book on Japanese paper folding write to: Oriental Culture Book Company, 1765 Sutter Street, San Francisco 15, California. Ask for Origami, Japanese Art of Paper Folding by Tokinobu and Hideko Mihara, Volume II, price - $1.20.
    2. For a free sample of rice shalfs "Exhibit of Rice" write to: 317 State Office Building, 325 Loyola Avenue, New Orleans, Louisiana 70112.
    3. Picture Packet of Japan (See first grade.)
    4. Japanese Culture Kit K1 (A-V Department)

  D. Tapes - "Toshiba, Japan" T761

  E. Field trip - Denver Art Museum

MAN AT HIGH LATITUDES

MAN AT HIGH LATITUDES

I. Overview

The tundra unit will enable the student to discover and to learn of the influence of the cold Arctic climate on social and economic activities of people residing in that area. In this study, the life of the Eskimo and Lapp may be compared with other primitive cultures. The adjustment of the Eskimo and Lapplanders as well as other dwellers of the tundra; to the modern world and its demands might also be considered.

The unit is designed for approximately three weeks.

II. Objectives

- A. To expand the knowledge of geographical locations and their relation to climate and living conditions of other areas of the world.
- B. To learn general names and terminology relative to this area
- C. To gain an understanding of the tundra, its importance, and its relation to other climatic regions of the world
- D. To learn the effect of the tundra's environment on the social and economic life of the people

III. Content

- A. Description and definition of the term tundra
  - 1. It is an ancient Finno-Ugrian one taken by the Russians from the Lapps.
  - 2. All northern peoples refer to the area of five million square miles, a tenth of the earth's land surface, as an area which separates the sea and the ice from the forests.
- B. The Eskimos
  - 1. Location of Eskimos on tundra lands
    - a. Relation to Arctic Circle (sun line), the earth's rotation on its axis, and the earth's movement in orbit around the sun
    - b. Location of tundra lands in North America compared with regions further south (the rest of Alaska, in particular) Also "Land of the Midnight Sun" and "Northern Lights"
  - 2. Typical Eskimo village
    - a. Homes
      - (1) Construction materials - wood (driftwood, and whalebone
      - (2) Reasons for construction peculiar to area - cold wind, storehouses
      - (3) Method of heating
      - (4) Igloos (three-fourths of all Eskimos have never seen one)

- b. People
- c. Food
- d. Activities
  - (1) Daily
    - (a) Care for homes and family
    - (b) Care for dogs and equipment
    - (c) Sew clothes
    - (d) Hunt and gather food
  - (2) Feasts and celebrations
    - (a) Naluktak
    - (b) Fourth of July
    - (c) Finger pull
    - (d) Dances
      - (1) Loon (Refer to At Home Around the World)
      - (2) Bear
  - (3) Boat Day
  - (4) Other games and activities
    - (a) Cat's Cradle (game)
    - (b) Arts and crafts
      - (1) Carving - wood, ivory, bone, stone
      - (2) Making musical instruments - drum, whistles
      - (3) Gambling and dice games played with sticks
      - (4) Tug of war and wrestling
      - (5) Jumping on foot square leather platform (men)
- e. Boats
  - (1) Kayak
  - (2) Oomiak
- f. Sleds
  - (1) Pulles by dogs (types of dogs)
  - (2) Dog hitches - swing, tandem, fan

3. Animals and birds of tundra lands
   - a. Seal
     - (1) Uses (coinsiding with type)
     - (2) Seal hunt
   - b. Whale
     - (1) Types
     - (2) Uses - blubber, baleen, whalebone
     - (3) Whale hunt
   - c. Walrus
   - d. Arctic fox
   - e. Polar bear
   - f. Wolverine
   - g. Arctic Owl
   - h. Reindeer
     - (1) The reindeer of the Old World and the caribou of the New World - essentially one and the same animal.

(2) In North America, the tame form is referred to as reindeer.
(3) An attempt made by the U. S. Government to introduce reindeer herding to the Alaskan Eskimo was unsuccessful.
i. Ptarmigan

C. Lapps
1. Mountain Lapps live a nomadic life.
a. They move from one place to another with their herds of reindeer.
b. They pitch their tents wherever there is enough vegetation to feed the herds.
c. An entire family lives in a single cone-shaped tent, shared by the family dogs.
d. The Mountain Lapps live chiefly on reindeer meat, milk and cheese.
2. The Sea Lapps and River Lapps are more sedentary.
3. It is believed that the Lapps moved to Lappland from central Asia thousands of years ago.

D. One of the most striking features of these cultures developed in the Arctic is their uniformity
1. Although they are spread over a vast area and are relatively few in number, their clothing, some of their hunting and cooking instruments and techniques, their social organization and other other cultural elements bear a marked similarity to each other, whether in Siberia, Europe or North America.
2. Thus, both the Eskimos of Banks Island, in the western part of the Canadian Arctic Archipelago, and the Lapps of northern Scandinavia prefer the skin of a caribou-reindeer fawn killed in August, with the hair turned in for inner clothing. (Both prefer the skin of a yearling killed in August, with the hair turned out for coats or hooded jackets, called parkas.)
3. Until recently, most Eskimos spent the winter in huts dug partly underground. (These dwellings resemble the huts once used by the Lappland and the Samoyeds, Koryaks and Chukchi of northern Siberia.) The same types of snowshoes are used by Eskimos, by Indians, and by Asiatic tribes.

E. Probably the oldest group of Arctic people are the Paleo-Asiatics of northeastern Siberia. (These include the Yukaghirs, Chukchi, and Koryaks, all of whom are believed to be the remnants of an ancient group of Mongolian-type people. They have largely turned to reindeer hunting.)

F. The Yakuts of the Siberian Arctic show unequaled ability to enudure cold, hunger, fatigue and lack of sleep - the latter in the summer. (Stripping naked at 60 degrees below zero, they lie down to sleep in the open with only their own clothes for a covering and a small wood fire to keep them from freezing.) The Yakuts have been influenced by Russian settlement in the north. Today many of them work in industry and at various trades, and many work on collective farms in the Yakut ASSR - Yakut Autonomous Soviet Socialist Republic.

IV. Activities
- A. Motivational
  - (1) Show pictures and bring articles about Eskimos.
  - (2) Show film. Example: "Alaskan Eskimos," Disney, 27 minutes, 1957.
  - (3) Read short story about Eskimo family or Eskimo life.
- B. Developmental
  - (1) Research for report work
    - (a) Encyclopedias
    - (b) Cutside references
  - (2) Booklets, notebooks
  - (3) Map work
  - (4) Construction projects
    - (a) Clay modeling
    - (b) Wood and soap carving
    - (c) Mockup of glacier
    - (d) Totem pole or totem mask
    - (e) Objects made of sugar cubes
  - (5) Pictures depicting some phase of Eskimo life plus short story explanation
  - (6) Murals
  - (7) Dioramas
  - (8) Comparison with the Lapps who live in northern Eurasia along the Arctic coast (Refer to World Book and Follow the Reindeer.)
- C. Culminating
  - (1) Plays and puppet shows
    - (a) Group or individual dramatizations
    - (b) Pantomime
  - (2) Discussions by children
    - (a) Ten or more questions and answers written by children (They ask each other questions and try to answer them.)
    - (b) Question box (Every child puts question in box. Each child draws question from box and tries to answer it.)
    - (c) Panel discussion concerning various phases of eskimo life.
    - (d) Baseball or football game. Teacher asks questions; members of teams advance to score with correct answers. Three "outs," etc., make other side up to bat.
    - (e) Short program depicting Eskimo life.
    - (f) Listen to music of Eskimos or learn Eskimo song.

V. Suggested materials
  A. Periodicals
    (1) "Carvings by the Eskimos" by Leechman, J. in School Arts, February, 1955, pages 5-9.
    (2) "Clothing the Eskimos Wear" by Sutherland, M. in Instructor, January, 1958, page 34.
    (3) "Eskimo Children at Play" by Burdick, L. in Instructor, January, 1956, pages 3, 53.
    (4) "Eskimo Life, Pictures" in Grade Teacher, December, 1953, pages 56-57.
    (5) "Eskimo Sculpture" by Barford, G. in Grade Teacher, September, 1958, page 43.
    (6) "Alaska: The Hard Country" by Leatherbee, Mary and photographed by Crand, Ralph in Life, October 1, 1965, pages 64-88.
    (7) "Nomads of the Far North" in National Geographic Magazine, October, 1949, pages 471-504, 505-570.
    (8) "Banks Island: Eskimo Life on the Polar Sea" on National Geographic Magazine, May, 1964, pages 702-35. Also "Alaska Proudly Joins the Union".
    (9) "Up Through the Ice of the North Pole" in National Geographic Magazine, July, 1959, pages 1-85.
    (10) "Alaska's Warmer Side" in National Geographic Magazine, June, 1956, pages 737-822.
    (11) "Alaska's Russian Frontier: Little Diomede" in National Geographic Magazine, pages 551-562, Morgan, Audrey, and Frank.
    (12) "White Wilderness" Stamp book from Walt Disney's movie, Louvain, Robert, Simon & Schuster, New York, 1958, 50 cents.
    (13) "Scientists Ride Ice Islands on Arctic Odysseys" Thomas, Lowell, Jr., National Geographic Magazine, November, 1965, pages 670-93.
    (14) "Thunder on the Ice" in Jack and Jill, February, 1962, pages 2-8.
    (15) "The Day Matuk Didn't Wait" in Jack and Jill, January, 1963, pages 2-8.
    (16) Follow the Reindeer by Sonia and Tim Gidal, New York: Pantheon Books, Inc., 1959.
    (17) Eskimo Cook Book, Alaska Crippled Children's Association, 225 E. Street, Anchorage, Alaska, 60 cents.
  B. Films from Littleton Public Schools Film Library
    (1) "Eskimo Children" (B and W)
    (2) "The Living Stone" (C)
    (3) "Eskimo Arts and Crafts" (C)
    (4) "Totems" (C)
    (5) "Loon's Necklace" (C)

DESERT LANDS (SAUDI ARABIA)

DESERT LANDS

I. Overview

Although emphasis is placed on the Arabian Desert and the Sahara as being exemplary of this environment, it would be advantageous to include other desert lands of the world, expecially those in Arizona, New Mexico, and Utah. Possibly comparisons might be drawn between the cultures of the various desert regions. (Example: Life on a Navajo Indian Reservation with Life in Libya) This unit is designed for a period of approximately three weeks.

II. Objectives

A. To understand the different kinds of people who live in this country and compare their lives with our own way of living
B. To understand the use of the natural resources of this country and the products the land produces for their living
C. To introduce the parallel lines, Tropic of Cancer, and Tropic of Capricorn and their relationship to the position of the sun
D. To become familiar with the Tropic Zone
E. To touch upon the history of the country and the way it relates to their culture, customs, religion, government, and education
F. To create a mental picture of the terrain, vegetation, and animals, both domestic and desert, that inhabit this country and the suitability of these for such an area
G. To understand the relationship between vegetation and rainfall in a desert region

III. Content

A. Desert

1. "Koppen deserts" are characterized by less than 10 inches of annual rainfall and generally high temperatures and they amount to 14 percent of the earth's 56 million square miles of land area.
2. The Australian Desert's most striking feature is the large part of the parent continent it occupies - 44 percent compared to 5 percent of the deserts of North America. (Average rainfall - 5 inches a year.)
3. The Arabian Desert covers nearly a million square miles of the Arabian peninsula.
   a. About a third of this is sand, a greater fraction than in any other desert.
   b. It has another distinction, a complete absence of permanent rivers, originating in it or flowing across it.
   c. There are no well-watered mountains to serve as river sources.

4. The Turkestan, the Mohave, the Sonoran, the Thar, the Kalahari, the Takla Makan, the Iranian, and the Atacoma - Peruvian in Chile are some of the other desert lands of the world. (Excellent source for information is Life Nature Library - The Desert)
5. The low humidity of typical deserts allows their daytime heat to dissipate quickly at night. (After a blazing summer day the temperature may drop 50 degrees.)
6. Altitude and latitude dictate differences in desert climates.
7. Saudi Arabia and other Old World deserts lack cactus plants. Cactus has recently be introduced in the Mediterranean world, but cactus species are native to the Americas.

B. The Sahara

1. In size, it is almost as large as the United States. (3,000,000 square miles)
2. It's greatest length from east to west is about 3,200 miles or greater than the distance between New York City and San Francisco.
3. It is from 800 to 1,400 miles wide from north to south.
4. The Sahara covers most of Algeria, Libya, and Egypt, and parts of Morocco, Tunisia, and the Sudan.
5. Most of the Sahara consists of mile upon mile of hot, shifting sand dunes.
6. It is the largest desert in the world.
7. Only a narrow strip of fertile land along the Nile River and scattered oases break up this waste desert land. (Sahara means desert region.)
8. It averages less than an inch of rainfall a year so there is very little vegetation.
9. The few scattered plants are mainly tufts of grass and some tough prickly shrubs.
10. The climate.

    a. The northeast trade wind that blows across Africa from the Red Sea to the Atlantic Ocean dries up the moisture of the Sahara.
    b. In summer, the equatorial sun sends temperature soaring to between 120 degrees F. and 130 degrees F. during the day.
    c. In winter, the sands cool so quickly, there may be frost at night.

11. Blinding sandstorms occur frequently.
12. There are several oases in this desert.

    a. Most of them are watered by springs that are fed from underground water.
    b. The water collects on a layer of clay beneath the sand.

13. The camel and the ostrich find a natural environment in the sandy wastes.
14. On the borders of the desert are lions, panthers, hyenas, jackels, foxes, and several kinds of snakes.
15. The people of the Sahara include Arabs, Berbers, Tuareg, Tibbu, and Negroes.

    a. The Arabs and Berbers live along the northern border of the desert near the Mediterranean Sea.
    b. The wandering Arabs of the desert are often called Bedouins.
    c. The Tibbu are a Negro people of mixed ancestry who reside in the southeastern part of the desert.
    d. Negroes reside in the southern section of the Sahara.
    e. Most of the people are followers of the Islamic faith.
    f. Natural resources which have already been discovered in commercial quantities in the rocky regions are oil, uranium, eror ore, coal, copper, and rich beds of phosphate.
    g. The people residing in the desert portion of Libya make a living by raising sheep, goats, and camels.

C. Saudi-Arabia

1. Geography - Tropic Zone

    a. Mountains
    b. Deserts
    c. Rivers
    d. Salt flats
    e. Oases

2. Climate

    a. It is one of the hottest countries in the world.
    b. Temperatures in the desert areas soar as high as 125 degrees F. in summer.
    c. Coastal regions have a high humidity, but the interior plateaus are extremely dry.
    d. About four inches of rain falls on most areas every year.
    e. Some sections such as the Rub al Khali may pass several years without rain. (Our hot deserts in the U.S. Southwest are considerably "greener" - The only large American desert which approaches the barrenness of parts of the Sahara is along the Peruvian and North Chilean coast (Atacoma desert) where vegetation is almost absent.

3. Vegetation

    a. Date palms
    b. Grains
    c. Cotton
    d. Fruits

4. Animals
    - a. Domestic (camel, sheep, goats, donkey, Arabian horse, cow, trained falcon, and hunting dogs.)
    - b. Desert (gazelle, oryx, ibex, hyena, wolf, baboon, jackel, snakes.)
    - c. Birds (eagle, flamigo, pelican, egret, sea birds.)

5. History
    - a. Culture and customs
        - 1) Desert people (Bedouins)
            - (a) Dwellings
                - (1) Tents (made of goat's hair or wool)
                - (2) Few possessions (eat and sleep on mats rolled out the floor)
            - (b) Clans or tribes
            - (c) Dress
                - 1) Women - robes, headcloth, veil
                - 2) Men - robes, cloak (aba), headcloth (ighal)
            - (d) Work
                - 1) Women do camp work
                - 2) Men guard and water the animals
                - 3) Children look after small animals
            - (e) Food
                - 1) Milk
                - 2) Dates
                - 3) Cheese
                - 4) Coarse bread
                - 5) Desert animals
                - 6) Sheep
                - 7) Rice
                - 8) Locusts (raw or roasted)
        - 2) Townspeople
            - (a) Homes
                - (1) Flat roofed
                - (2) Courtyards
                - (3) Sundried brick
                - (4) Stone slab
                - (5) Castle-like houses

- b. Dress
    - 1) Similar to the desert people
    - 2) The rich wear silk, embroidered in gold, jewels
    - 3) Work
        - a) Farmers
        - b) Traders
        - c) Oil men

6. Religion
    - a. Family life centers around Islamic religion
    - b. In accordance with Islamic practice, the people usually stop whatever they are doing at sunrise, noon, mid-afternoon, sunset, and nightfall to bow toward Mecca and pray.
    - c. The women usually live in one section of the house and the men the other.

7. Government
    - a. Ruling class
    - b. Public owned utilities
    - c. Current political problems

8. Education
    - a. Public
    - b. Private
    - c. Non-coeducational
    - d. Mobile (for desert people)

9. Resources
    - a. Petroleum (one tenth of the world's oil reserves)
    - b. Small deposits of gold, copper, and silver

10. Industry
    - a. Refineries (oil)
    - b. Fishing (cod, mackerel, and other fishes)
    - c. Trade (gold, animal hides, skins)

11. Transportation (camel caravans, donkeys, and automobiles - one railroad, airplanes)

IV. Activities

A. Bulletin board display of pictures showing dress, animals, industry, etc.

B. Display table - have children bring in objects made in Arabia.

C. "Aramco" charts displayed.

D. Make a desert oasis using a sand box. Construct palm trees, houses, tent cities outside the oasis, the Persian Gulf made out of mirror, etc. Keep adding objects as they are discussed in class.

E. Make oil well models using erector sets, toothpicks, or sticks.

F. For papier-mache camels, see page 67, March, 1966, issue of The Grade Teacher.

G. For making cork camels, use the following: body - 2 corks, glued back to back; tail - yarn; legs - pipe stem cleaners; attach head, hump, and tail with pins.

H. Assign reports on different points of the content outline.

I. Group activities discussing the points on the content outline.

J. Dramatize the hospitality shown when a visitor calls on a Bedouin at his tent.

K. Make a mural depicting differences of the desert people and the townspeople.

L. In a series of drawings show the development of transportation in the country.

M. In a series of drawings show the products and natural resources of the country.

N. Make up puzzles or riddles about different aspects of Arabian life.

O. Make a sunray card described on page 96 of the teacher's manual for At Home Around the World.

P. Pointing-to-the-sun game described on page 96 of the teacher's manual for At Home Around the World could be used.

Q. Make a notebook of descriptions and pictures of animals found in this country. Also include reports on each one, especially on the camel and why it is well suited for desert living.

R. Do reports on customs of the Arab people, such as no school on Friday, separate schools for boys and girls, boys bowing when greeting teachers, and girls and women eating after the men have eaten, etc.

S. Have class discussions on how plants manage to live in the desert.

T. Make soap carvings of camels, sheep, goats, and donkeys.

U. Show films and filmstrips on oil production and life of the desert people as listed in the suggested materials section.

V. Discover how the camel is adapted to his environment.

HOT, WET LANDS OF THE RAIN FOREST
(AMAZON AND CONGO)

HOT, WET LANDS OF THE RAIN FOREST (AMAZON AND CONGO)

I. Overview

This unit enables the students to study the main rain forests of the earth and to make a comparison of the adaptations and adjustments which the people of these regions have made. We are primarily con-concerned with the rain forest area of the Congo.

The approximate teaching time for this unit is four weeks.

II. Objectives

A. To understand the relationship between vegetation and rainfall in forest regions
B. To learn about climate characteristics of tropical regions
C. To recognize the many products that come from the rain forest
D. To realize the importance of preserving our natural resources

III. Content

A. General information

The hot, wet lands of the rain forest are found in the equatorial band that circles the earth. There are three main rain forests of the earth--South America, Asia, and Africa. These hot, wet lands have abundant plant growth with many trees. In some regions, 80 to 100 different varieties of trees may be found. The thick branches tend to block out the sun leaving the forest floor in semidarkness and with negligible life forms. This rich plant growth takes minerals from the soil; and since there is no end to the growing season, there is no chance for the soil to be rebuilt. The rains tend to leech many nutrients from the soil. People who are native to this area adjust to the climate while men of other regions sometimes find it unpleasant. Not until valuable natural resources were discovered in these lands did men from other regions enter them. Others who learned about the lives of the natives entered to help the people. Today many of these natives are forming nations and preparing for a better life in their self-governing communities.

B. The Amazon

1. The Amazon lies nearly on the equator, 0 degrees latitude, and its fingers (tributaries) stretch southward for hundreds of miles to the 10th parallel south.
2. The Amazon rain forest stretches across northern Brazil, Peru, Colombia, the Guianas, Ecuador, and northern Bolivia from longitude 50 degrees to longitude 75 degrees West, 2,000 miles

from Belem to Iquitos. It is in the northern part of South America, the Western Hemisphere.

3. The climate is hot, rainy, and steamy. The temperature at sunrise is usually 65-75 degrees; by mid-afternoon it rises to 85-95 degrees, with 15-20 degrees hotter in the sun. During the night, it cools 15-20 degrees below mid-afternoon. The temperature and length of days always remain the same because the Amazon lies on the equator.

4. There are two seasons - the period of the "big rains" (showers almost every day) and the period of the "little rains". Generally, the showers occur in the afternoon. The annual rainfall is more than 60 inches, which accounts for the fact that the Amazon River carries more water than any other river in the world.

5. A river basin is all the land drained by the river and its tributaries.

6. Gently rolling hills a few hundred feet high interrupt the generally flat expanse of the Amazon River basin.

7. Rubber trees (Hevea brasiliensis) yield high quality "elastic juice." In 1839, Charles Goodyear accidentally dropped some rubber mixed with sulfur on a hot stove and discovered the process of vulcanizing. The raw rubber sap is called latex. Workers make cuts in the bark and hang clay pots under the cuts. After collecting the latex, workers smoke it over a fire to dry and harden it.

8. Mahogany and teak are cut for furniture. There is not much lumbering done in the rain forests, because of poor transportation facilities and scattered varieties. Trees in the hot, moist rain forests grow more rapidly than trees in northern forests; therefore, they are not depleted as fast.

9. Other products from trees of the rain forest are: turpentine, chicle (from which gum is made), camphor, quinine, cork, and cacao beans (from which chocolate is made), and Brazil nuts.

10. Rain forest versus jungle: There is little or no undergrowth found in the rain forests except in clearings or at rivers, where the sunlight breaks through. Here it becomes a thick jungle, with tangled undergrowth. In the Amazon region rain forests are more common than jungles, but Indians have to travel through the jungle when hunting and moving. It is necessary to carry machetes to facilitate cutting the undergrowth.

11. Animals hunted are monkeys, sloths, peccary (a king of pig), jaguar, parrots, and deer.

12. Goods traded for forest products are usually beads, cotton cloth, salt, and machetes.

13. Manioc is the chief crop of the Amazon Indians. The leaves are eaten as a green vegetable, while the thick roots provide flour for bread. These have to be soaked and squeezed to remove the poison juices.

14. Pimwe is a boy of the rain forest who is exemplary of life in this region. His village is on a tributary of the Amazon. It is near the river because it is easier to travel by dugout canoe than through the forest. It is on high ground well back from the river to be safe from floods and insects and the eyes of enemy warriors. They live near enough to other friendly tribes, but far enough so they do not "trespass" on the hunting grounds of their friends.

15. Pimwe's tribe lives in a pole and thatch house. The clearing of land took many weeks, since they have no power saws; but they have only a steel ax and a few sharp knives secured from a trader. Tree trunks are hauled to one side to make the frame. Bushes, vines, and branches are burned, using a torch from the cooking fire since matches are scarce, and the stocks are too wet to be rubbed. Ashes from the burning make fertilizer for the gardens. On large trees they cut away the bark around the trunks to kill them (called girding). Three lines of tree trunks are set upright in the ground, and branches are tied to them to form the frame of the house. Woven palm leaves form mats for the roof, which lasts only a few years because of rotting.

16. Ground is broken for the fields with digging sticks, and they use clubs to pound clods of dirt into smaller pieces.

17. The tribe has to move every few years because of depletion of the soil, and the resulting scarcity of animals.

18. The whole tribe lives in the one pole-and-thatch house with no windows and only two doors. There are small living spaces around the sides for each family. Each has hammocks and a cooking fire always burning.

19. The people take their products to trading posts 100 miles away in canoes. The main ports on the river are Iquitos, Manaus, and Belem, a city of 275,000 population. From Belem, coastwise vessels sail to Rio de Janeiro. Ocean-going vessels and river steamers go up river at least as far as

Manaus. There are no railroads or roads crossing the area, but there are airways at Belem, with flights to Manaus and from Miami to Rio.

20. Problems: Insects and plant diseases thrive in this hot, humid climate and create a great health problem. The United Nations has sent scientists to combat these diseases, and nurses visit the Amazon vilages by boat or hydroplane. About 30 health centers have been set up to control malaria. DDT spraying and pure-water supplies have helped to prevent typhoid. However, progress is slow in the Amazon. Another problem of this area is the sparce population which creates a labor shortage. Hot, humid climate reduces a worker's energy. Poor transportation and dense undergrowth are also hardships.

21. Entertainment: The tribe has a feast on special occasions. The women make paint from vegetables (black, white, and red) for their bodies, and the men put tall crowns of parrot feathers on their heads and wear leg bands and necklaces of nutshells. Story-telling is a favorite entertainment.

C. Equatorial Islands (Indonesia: Sumatra, Borneo, Netherlands New Guinea)

1. Climate - Rainy monsoon, seasonal wind. Warm - 79 degrees year round at Djakarta.

2. Flora-fauna - Teakwood, sandalwood (furniture); ebony, bamboo, rattan (wicker products); cinchona (quinine); mangione (leather tanning); gourami, kissing fish, and bandeng, herring (food).

3. History
    a. Pre-historic man, Java Man, about 500,000 years ago.
    b. Hindu Period - A.D. 100
    c. Islam Period - A.D. 1500 (Today this faith is the most predominant in Indonesia.)
    d. Dutch East India Company, 1602, merchants to Spice Islands. Drove out Spanish, Portuguese, British. Dutch government took over in 1798.
    e. Dutch rule - French and English during Napoleonic Wars took control in early 1800's. Dutch regained control in 1815. Private plantations. In 1918 set up a Volksraad or People's Council with very limited authority. In 1930's fewer than 200 people with high school education.
    f. Japanese rule - In the early days of World War II, people were encouraged by the Japanese to set up a local government. Many leaders, such as Sukarno, joined the movement.

- g. Revolution against Dutch (1945-49)
- h. Republic of Indonesia in November, 1964
- i. Sovereignty in December, 1949
- j. Joined the United Nations in 1950, withdrew in 1964 - rejoined 1966
- k. Products exported: tea, rubber, sugar, tobacco, pepper, petroleum, copra, tin, copper
- l. Products imported: textiles, food, machinery vehicles, metals, manufactured goods
- m. Customs
  - (1) Deep respect for age-old village customs
  - (2) Five Pillars of Indonesia (Pantja-sila): Democracy, social justice, nationalism, humanitarianism, belief in God
- n. Recreation
  - (1) Dancing
  - (2) Puppet plays with music (called wayang)
  - (3) Literature
- o. Transportation
  - (1) Difficult due to dense jungles
  - (2) Walking, using an oxcart, bicycling
- p. Communication - postal, telegraph, and phone service are government owned.
- q. Problems
  - (1) Transportation
  - (2) Communication
  - (3) Illiteracy

D. Congo

1. Location - It is a large country that occupies most of the heart of central Africa. The Congo River Basin is a vast saucerlike depression in the high plateau of Equatorial Africa. It lies approximately 1,300 feet above sea level and covers almost 904,000 square miles.

2. The Congo River Basin drains more than 1,600,000 square miles. It curves approximately 3,000 miles into the heart of tropical Africa. (With its tributaries, it is navigable for over 8,000 miles. Each second the Congo pours 1,200,000 cubic feet of water into the Atlantic. A railroad carries passengers and freight around the unnavigable 215-mile stretch between Kinshasa and Matadi. Rail lines are also used around Stanley Falls and 180 miles of rapids upstream. Shallow draft, stern-wheel boats share the river with the canoes of the natives.)

3. Other physical geography
   - a. In the west and southeast, the Congo Basin is bordered by the highlands that rise to heights of

more than 6,000 feet. (This range contains the third highest peak in Africa, Mount Margherita, 16,795 feet, which rises on the frontier between the Congo and the Uganda.)

b. Some of the largest lakes of Africa border the Congo. (Along the country's eastern border are many lakes that lie in one of the branches of the Great Rift Valley, an extensive depression that runs from western Asia southward to Mozambique in eastern Africa. Important lakes bordering the eastern Congo includes Lake Tanganyika which is the second deepest in the world, and Lakes Kivu, Edward, and Albert. There are old lava beds in the Kivu region of the Rift and many extinct volcanoes. About 250,000 years ago the whole basin was a lake. A stream cut through the western rim and began to drain the water away.)

c. The Katanga highlands rise along the southernmost margins of the basin. They are mostly high plateaus with mountains along their borders. The Lofoi River in the Katanga Mountains has the highest single-leap waterfall in Africa.

d. Almost half the Congo Basin is covered by a rain forest that stretches for several hundred miles above and below the equator. There is little undergrowth in the interior of the rain forest, for the dense foliage shuts out the sun. Along the outer edges trees grow farther apart, and some sun shines through to the forest floor. Bushes, vines, creepers, and other plants grow in these areas. Although there is still rain forest along the streams and rivers, the outer margins of the Congo Basin are fairly dry. In these drier parts there are belts of tall grasses and forests of thorn trees that stand fifteen to twenty feet high. The branches of these trees are covered with needle-sharp thorns, four or five inches long.

4. The Congo has three major types of climate.

a. Most of the area of the Congo Basin, which is crossed by the equator, has a rainy tropical climate. Rainfall occurs throughout the year usually at the same times each day, and averages from 60 to 80 inches a year. (The lowest branches of many trees are 60 feet above the ground. Small trees grow close together under the taller ones, under these, bushes and tree ferns tower as high as a house. A matted undergrowth of still smaller plants crowds the ground. Vines twist and turn as though to tie it all together.)

   - b. The areas on either side of the basin have a rainy-and-dry tropical climate, with a moderate rainfall of about 40 to 60 inches a year. The rainy season extends from October to May in areas south of the equator and from April to November in areas north of the equator.
   - c. The highlands of the east and southeast have somewhat cooler temperatures and receive less rainfall than the rest of the Congo.
   - d. Because the basin straddles the equator, the weather is hot and humid.

5. One of the most interesting things about the Congo is the number and variety of its animals. Leopards, hyenas, wild dogs, jackals, buffaloes, elephants, and a variety of antelopes roam the wooded grasslands. Giraffes and rhinoceroses live in the northeastern corner of the basin. Other inhabitants include lions, gorillas, chimpanzees, okapi, and many dwarf or pygmy animals, such as the red forest buffaloes, pygmy elephants, dwarf chimpanzees, and antelopes not much bigger than rabbits.

6. General history
   - a. The first white man to set foot in the Congo was the Portuguese explorer Diogo Cao, who sighted the mouth of the Congo in 1482. The Portuguese gained influence in the kingdom of the Congo, which occupied what is now northern Angola and extended northward to include what is now the extreme western part of the Congo.
   - b. The interior was largely unknown, unexplored territory until 1876 when the English explorer Sir Henry Morton Stanley followed the course of the Congo River from Central Africa westward to the Atlantic Ocean. When Stanley returned to Europe, he was hired by King Leopold II of Belgium to explore further and to set up a trading company. As a result of this arrangement, the Congo Free State was established in 1885 as the personal domain of King Leopold. However, the use of forced labor and the mistreatment of the native workers caused international criticism of Leopold's administration. In 1908 the Belgian government took over the Congo Free State as a colony, under the name of the Belgium Congo.
   - c. During the period of the Belgian rule, from 1908 to 1960, the colony underwent great economic development. Large corporations, many in partnership with the Belgian government, developed the natural resources of the Congo.

d. The educational system, established by the Belgians after World War II, was designed to provide Africans with a limited technical education. In 1959, the last year of Belgian rule, the Congo had 13,721 schools, which were educating 1,739,117 students. In 1959 the literacy rate for school-age students of the Congo was almost 50 per cent, one of the highest on the African continent.

e. Riots erupted in the Congo in the middle of the 1950's as a wave of African nationalism swept over many parts of the country.

f. In January and February 1960, at a conference between Belgian and Congolese delegates held in Brussels, it was decided to grant the Colony independence in June 1960.

g. Less than one week after independence, the native Africans revolted against the Belgian officers. Thousands of Belgians fled the country. The central government under Lumumba was unable to restore order. Katanga, the source of much of the Congo wealth, declared itself independent. United Nations troops were requested and received to help restore order. In September, 1964, the Congolese president, Kasavubu, dismissed Lumumba as premier. Lumumba was later killed. Under Mobutu's direction a new parliament convened. Finally Katanga was reunited in January, 1963. The reunification was short-lived. By June 1964; however, the last U.N. troops were withdrawn and a new Congolese government was formed with Tshombe as premier. Revolts continued. In late 1965, Tshombe was removed from office. In March 1966, General Mobutu abolished all of parliament's functions and assigned all legislative powers himself, despite opposition. It thus appears that the Congo is still a long way from having a stable, representative government that could develop the country's economic potential. (For current information refer to African Report.)

7. Products exported: coffee, cotton, palm kernels and oil, rubber, gold, manganese, tin, zinc, cobalt (mines three-fourths of the world's supply), diamonds, copper.

8. Transportation - Most passenger traffic is carried by plane or boat. Diesel steamers carry freight and passengers between major river cities. Rapids and cataracts of the Upper Congo River make navigation almost impossible. In order to open the whole of the Congo Basin for development, it has been necessary to build railroads. Travel on foot in the Congo has always been dangerous because there are so

many crocodile-infested streams to cross. Natives often must make rope bridges over such streams.

9. Communication - Though telephone and telegraph service now connect the larger towns of the Congo, the only means of communication in most of the basin is the tom-tom, a kind of drum beaten by the hands whose sound carries a long way. A short message, relayed from village to village, will travel several hundred miles in less than an hour.

10. Customs, ways of living - The Congolese, or native Congo dwellers, live in villages situated near streams or lakes. From two to three hundred people live in a village. All of the villagers may be members of one or two large families or clans. They are ruled by a chief, who treats them as though they were his own children. An elderly person often acts as head of a family.

11. The juxtaposition of the Pygmies, with the very tall Watutsi living in adjacent areas of Rwanda and Burundi are interesting. The Pygmies live in the Ituri Forest in the northeastern area of the Congo.

12. Bride price (lobola) is very common, but this isn't the same as buying a wife. The groom or parents of the groom give the parents of the bride cattle in return for her marriage. She isn't forced to marry. The more common application is that when the young people decide to get married the husband pays the bride price to the bride's father. Sometimes he purchases a second wife to help with the family chores. He must build a separate house for each wife.

13. Today, most homes are constructed of mud and wattle. Roofs are thatched with mats of grass or banana leaves which withstand heavy rains.

14. Certain jobs in a Congo village are shared by men and women - such as: dying cloth, making pottery, baskets, animal traps, and fishing nets. Jobs of the men include: clearing away the trees and underbrush to make fields for growing crops, hunting and fishing, keeping the houses in repair, hollowing out logs for canoes, weaving fibers for mats and baskets, carving wood, making iron and copper tools and ornaments, and keeping the vine bridges over the crocodile-infested streams in repair. Jobs of the women include: sowing the crops; tending and harvesting them; searching fields and forests for fruit, berries, and edible roots; and cooking.

15. The cleared land surrounding a Congo village is jointly owned and tilled by the villagers, and all share the crop when it

is harvested. The Congolese eat a variety of foods: honey, bananas, berries, plantain, wild rice, nuts, casaa, manioc, millet, maize, peas, beans, potatoes, meats, and fish.

16. Clothing is very simple. It consists usually of a single garment made of leaves, bark fibers, or cloth (i.e. loin cloth). Most Congolese prefer to go barefoot, for the soles of their feet are tougher than leather. They make up for the simplicity of dress by decorating their bodies: piercing ears and lips and inserting ornaments, tatooing their bodies, filing their teeth to points, stretching lips grotesquely out of shape by inserting wooden disks, and weighing down their necks with brass collars.

17. Most Congolese practice the primitive religions of their ancestors. Every village has its witch doctor in whom the people put their faith. The Congolese are a superstitious people. They carry fetishes, or charms, which they believe will protect them from the "evil eye." They carefully observe the tribal taboos.

18. Local tribal governments vary, usually villages are headed by the tribal chief.

19. Problems - Travel is difficult in some areas because of thick undergrowth. Building railroads in the Congo Basin has been difficult and expensive. Large forests must be bypassed. Swamps and streams must be bypassed or spanned by bridges. Flash floods and track washouts are problems during the rainy season. Efforts are being made to eliminate malnutrition, starvation, disease, and soil depletion.

20. Malnutrition and starvation have always been problems in the forested parts of the Congo Basin. The Congolese know nothing about crop rotation or the use of fertilizers. When crops begin to fail, the villages must abandon the land and move elsewhere.

21. Entertainment - Dancing, inviting neighboring tribes for feasts, staging wrestling matches, testing skill with the spear and bow and arrow, and listening to storytellers who wander from village to village, provide the native Congolese with entertainment.

22. Cities: The Congo has several large and important cities. More than 20 percent of the Africans and almost all of the Europeans are city dwellers.
    a. The largest city and capital of the Congo is Kinshasa, which lies on the Congo River in the western part of the country. It is a modern, Europeanized city, and it had a population of

about 389,500 in 1958. (formerly Leopoldville)
   b. Lumumbashi, the commercial center of the southeast and former capital of Katanga had a population of about 182,600 in 1958.
   c. Matadi, near the mouth of the Congo River, is the country's chief port.
   d. Kisangani (formerly Stanleyville), in the northeastern Congo, and Jadolville, an important mining center in the southeast, are other major cities.

E. Although most civilizations have arisen in dry lands, or temperate regions, civilizations have not exactly shunned rain-forests. Several important early civilizations were established in humid, hot forests, despite the difficulties. These included:

   1. Kerala region of southwestern India
   2. Island of Ceylon
   3. Bengal (now divided between India and East Pakistan)
   4. Southeast Asia and Indonesia. (There are numerous impressive remains of former high civilization in the tropical rain forests of cambodia and South Viet Nam, and also in southern Sumatra and Java, e.g., Angkor Wat, Borobudur.)
   5. In southern Mexico, Guatemala, and Yucatan (though much of the latter is more of a thorn-scrub forest) high civilization arose also. Numerous Mesoamerican ruins occur in heavily forested tropical environments.

IV. Activities

A. Compile a social studies scrapbook. While newspaper articles may not be too meaningful at this grade level, maps showing the location of cities may be both useful and interesting. Have the children insert any art work, reports, or lists prepared while the unit was being studied. They may find colored pictures of tribal customs and village scenes in magazines.

B. Using mural work, depict the way of life and customs of these people.

C. Have the class make drawings of some of the animals found in each of the three hot, wet lands. Arrange pictures in three groups and display them. Ask the children to show the name of each animal prominently and write a short statement about it.

D. Have a qualified person who has visited or worked in a tropical land to visit the class.

E. Do map work. Divide the class into three groups and ask each group to draw a map of one of the three major hot, wet lands. The maps could be drawn on large sheets of paper (8 x 12 in.) and then mounted on cardboard that is at least six inches larger on the four sides. Pictures depicting the area could be placed on it. Other information may be placed on the cardboard border and connected to proper sections of the map by tapes or lines. Since space will limit the information that can be pictured, it will be well to discuss in advance just what each map should include.

F. Prepare reports, some of which may be read before the class, on the main products of the hot, wet lands. Have ample reference material available and check topics in advance to make sure that all important products are included and that there is a minimum of duplication. Suggestions for topics are: coal, cobalt, cocoa copper, diamonds, gold, hardwoods, palm kernels and oil, petroleum, rubber, sugar, uranium.

G. Have advanced pupils pretend they are a group of travel agents who are urging the class to visit certain placed or travel along certain rivers in the hot, wet regions. They should procure travel folders from travel agencies and read books to give them additional information. The areas to be visited should be divided among the group so that each child can act as an agent trying to sell trips to one place. They should obtain as many pictures as possible to make the trip look interesting.

H. Draw a map of the Amazon and its tributaries and the Congo and its tributaries (include the Equatorial Islands).

I. Make a vocabulary notebook for each unit.

J. Look up Charles Goodyear and Henry Ford in an encyclopedia.

K. Compare the rainfall in Colorado with that of the rain forest.

L. Have students draw a comparison between the Amazon and the Congo.

REFERENCE BOOKS ON THE CONGO

Allen, William D. Africa. Fideler, 1958, 192. (grades 5-7) $3.88

Quinn, Vernon Picture Map Geography of Africa. Lippincott, 1952, 119 p. (grades 5-8) $4.50 Congo, Belgium pp. 80-85

Caldwell, John C. Let's Visit Middle Africa; East Africa--Central Africa--the Congo. Day, 1958., 96 p. (grades 5-8) $2.95

Caldwell, John C. Our Neighbors in Africa. Day, 1961, 48 p. (grades 2-4) $2.39. "The authors describe the geography, climate, animals, agricultural products, and natural resources of Africa. They also describe the modern cities but emphasis is placed on the way people live, the food they eat and the problems they face."

Hughes, Langston. The First Book of Africa. Watts, F. 1964, 82 p. (grades 4-7) $2.65. "After presenting a history of Africa and brief biographies of Livingstone and Stanley, Cecil Rhodes and Albert Schweitzer, the author pictures the native African peoples and their arts, including the geography, government, and politics of Kenya, Guinea, Liberia, Ghana, the Congo, and Republic of South Africa."

Sutton, Felix. The Illustrated Book about Africa. Grosset, 1961, 157 p. (grades 5-7) $4.95. "First published 1959, brought up-to-date 1962. View of people, customs, geographical terrain, and wild life of the various sections of the African continent."

Wattenberg, Ben. The New Nations of Africa. Hart, 1963, 479 p. (grades 5-7) $10.00. "Information on government, geography, natural resources, people, educational facilities and history of Algeria, etc. (Congo-Brazzaville and Congo--Leopoldville included.)

Lauber, Patricia. The Congo; River into Central Africa. Garrard 1964 96 p. (grades 3-6) $2.75. "About half the book tells of the explorations of the Nile and the Congo; brief treatment of flora and fauna, present-day development of mineral wealth, and some of the native peoples along the Congo.

Kittler, G. Let's Travel in the Congo. Childrens Press $3.50 (est. grades 4-6)

Carbonnier, Jeanne. Congo Explorer.(grades 7-10) Scribner, $3.00

Gunther, John. Meet the Congo and Its Neighbors. 1959 Harper (grades 7-11) $3.95

Westphal, Clarence. Come Along to the Congo. 1963, Denison $3.95

Robins, Eric. Getting to Know the Congo River. 1965, Coward $2.68 (grades 2-6)

Fideler. Picture File of Africa: 48 plates
Maps: Plates 1, 2, 9, 16, 19, 30, 38, 42
Other pictures: Plates 6, 33, 40

Story: "Kintu" by Elizabeth Enright. Arbuthnot Anthology of Children's Literature. p. 218-226. 4th grade level. Tells quite a lot about homes, ways and customs, and an exciting story of how a boy overcame his fear of the jungle.

African Myths and Legends
Arnott, Kathleen. African Myths and Legends. Walck, 1963, 211 p. $4.00 (grades 4-7)

Carpenter, Frances. African Wonder Tales Doubleday 1963, 215 p. $3.95 (grades 4-6)

Check Reader's Guide to Periodical Literature for magazine articles in Newsweek, Time, Life and National Geographic. There was a special edition of Life that came out on Africa.

Tourist Travel Center - Embassy
Congo
Washington, D. C.

POLDER - LAND FROM THE SEA (NETHERLANDS)

POLDER - LAND FROM THE SEA (NETHERLANDS)

I. Overview

This unit enables the student to study about an area where the economic and social activities have developed, at least in part, as a result of the necessity of an extensive land reclamation program.

This unit is designed for a period of approximately three weeks.

II. Objectives

- A. To understand how environment influences the way people live
- B. To learn about the difficulties in taking land from the sea
- C. To note the numerous water systems unique in this specific country
- D. To learn about the growth and development of major cities
- E. To develop understandings of the main forms of transportation
- F. To learn about topographic and geographic features of the Netherlands
- G. To develop map skills in locating and studying the Netherlands

III. Content

A. General information about the Netherlands

1. Netherlands means lowlands
2. It is located in northern Europe. (Bordered by Belguim on the south, the North Sea on the north, and west, and Germany on the east.)
3. It is located in the Northern Hemisphere as well as the Eastern Hemisphere.
4. It is smaller than the State of Colorado in size.
5. The country is often called Holland.
6. The capital city is Amsterdam on the Zuider Zee.
7. The deepest part of the Zuider Zee has been converted into Lake Ilssel (pronounced ICE el), a large body of fresh water.

B. Climate

1. The climate is moderate with cool summers and mild winters.
2. The average temperature in summer is 68 degrees F., and in winter 35 degrees F.
3. Rain falls frequently, but not of long duration.

4. There are approximately two hundred days of dampness and fog per year - autumn is a foggy season.
5. It receives approximately 25 inches of rainfall a year.
6. The prevailing west wind blows nearly every day.
7. The winds blowing across the North Atlantic Drift keep the winter weather from becoming very cold.

C. Land

1. The country has three geographic regions. They are the coasts, the polders, and the uplands.
2. The name "Netherlands" suits the country because large sections lie below sea level.
3. The canals, lakes, and rivers make up about one-fourth of the Netherlands.
4. The country's surface is almost entirely flat. The highest hills are only about one thousand feet above sea level.
5. Sand, gravel, clay, and salt are abundant because of the action of the sea.
6. Sand bars off most of the coasts are broken by river deltas and lagoons where peat and marine clay form.
7. Centuries of turbulent seas and floods have eroded the coastlines.
8. Rivers flow along the slope of the land east to west: Rhine River from Germany, Meuse River, Scheldt River.
9. The Netherlands have added to the land of their country by building dikes which are walls, usually made of earth, that keep water from flooding the land.
10. The polders are made by constructing a dike around an area of sea, lake, or marsh to be drained. Then windmills or power-driven engines pump the water from the dike-enclosed area into a canal. Other mills and engines pump the water from these small canals into larger canals that flow into the North Sea. The first step in draining the Zuider Zee was to construct a 20-mile-long dike across the entrance to the bay. The dike was completed in 1932, and stands 25 feet above the average height of the North Sea. The Netherlanders drained the first polder in 1930. It is the 50,000 acre Wieringermeer (pronounced VEE ring ur MAYR), or northwestern polder.
11. In 1953 a North Sea storm broke through dikes and flooded over 300,000 acres of the Netherlands' southwest delta country. (The flood drowned more than 1,800 persons.) To avoid future floods, the Dutch parliament in 1957 approved the largest flood-control project in Dutch history, The Delta Plan. The project included a series of dams. The first dam was completed in 1961. The project also includes giant floodgates which will open during the winter and spring to allow ice from the rivers to flow out to the North Sea. The entire plan is scheduled for completion by 1978.

D. The way of life in the Netherlands is unique

1. The Netherlands is one of the most densely populated lands in the world.
    a. A population of over 11,700,000.
    b. About 900 people inhabit each square mile.
2. One-third of the people live in cities.
    a. Apartment buildings are numerous.
    b. Multiple dwellings are useful as living quarters for the people.
3. The Dutch are noted for their clean and tidy homes. The housewives even scrub the sidewalks as part of their chores.
4. Farm homes are numerous in this country. The way of life is simple in these areas.
5. The official language is Dutch.
6. This country's constitution is based on freedom. Freedom in religion is an important aspect of their constitution that has not always been practiced.
7. It is a misconception to consider the Dutch people as all having blond hair and blue eyes.
8. The Dutch people cherish their freedom and have fought to maintain this independence.
9. Main food dishes
    a. The well-known "Rysttafel" (raist-tahfl) means rice table and it may display 35 varieties of rice. This is an adaptation of Indonesian cuisine, chiefly boiled rice which is served with a great variety of sauces, side-dishes, etc. Rice does not grow in the Netherlands. The Dutch learned to eat this type of food when they held Indonesia as a colony. There are several good Indonesian restaurants in the Netherlands.
    b. Snert (snared) is a thick soup of pork and vegetables.
    c. Beans and bacon is a popular meal.
    d. Smoked eel and Zeeland oysters are Dutch specialities.
10. Most people exemplify the western modes of dress.

E. The people observe a number of holidays and festivals.

1. The Queen's birthday is an important celebration.
    a. A parade is held on this day.
    b. The present ruler is Queen Juliana.
2. The Flower Festivals are most colorful (observed in April).
3. St. Nicholas Day is comparable to our Christmas.
    a. It is a period of good times and gift exchanging.
    b. It is celebrated on December 6.
4. The opening of Parliament each year is a momentous time. This occurs the third Tuesday in September.
5. The Music Festival is an entertaining time for the people each year.

F. Symbols of the Netherlands

1. The flag consists of three horizontal stripes of red, white and blue.

2. The national flower is the tulip.
3. Although they are no longer used, windmills are considered part of this country's culture.

G. Other information of interest

1. The national anthem is "Wilhelmia van Nassouve"(William of Nassau).
2. The slogan most fitting for this country is "To cultivate the soil is to serve your country."
3. Equally important to many is the saying "A nation that lives builds for its future."

H. Transportation and communication

1. The Netherlands has a great network of rivers and canals, many of which are navigable. There are approximately five thousand miles of canals. Nearly every town in Holland can be reached by water.
2. The Netherlands has the seventh largest merchant fleet in the world.
3. The Netherlands has about two thousand miles of railroads. Approximately half of the railways are electric.
4. The Netherlands has many wide, modern highways.
5. There are many trucks, cars, and bicycles. The most popular means of transportation is the bicycle.
6. Television sets are in many Dutch homes.
7. Most Dutch homes have a telephone.
8. KLM (Royal Dutch Airlines), established in 1919, is the oldest operating airline in the world.

I. Industry

1. Trading - The Netherlands is one of the most important trading nations.
2. Farming
   a. Most farms in the Netherlands are from 10 to 25 acres in size.
   b. Field crops are raised on about two-fifths of the farmland.
   c. The most important crops are wheat, rye, oats, barley, potatoes, and sugar beets.
   d. Scientific farming methods are used in the Netherlands. Large amounts of fertilizer are used to enrich the soil.
   e. Sixty-one percent of the farm produce is made up of livestock and dairy products.
   f. The climate of this country with mild temperatures and plenty of rainfall is very favorable for raising cattle.
   g. Dairy farms are usually located in the polders.
   h. The Netherlands is the world's second largest producer of cheese.
   i. Great quantities of cheese, butter, and condensed milk are shipped to other countries.

        - j. Flower bulbs are perhaps the best known agricultural product of the country. Tulips, hyacinths, daffodils, and narcissuses carpet the countryside.
    - 3. Dutch crafts
        - a. Diamond factories
            - (1) Rough diamonds are cut and polished.
            - (2) Diamonds are used to make jewelry.
            - (3) Diamonds are used to make precision tools for industry
        - b. Delft pottery is known throughout the world.
        - c. Silver products, such as plates, boxes, and spoons are made in the Netherlands.
        - d. Glass-blowing is an important industry in the Netherlands.
    - 4. Mining - coal and salt.
    - 5. Metal industry
        - a. The metal industry is the largest of all Dutch industries.
        - b. The Netherlands uses millions of tons of iron and steel each year in metal products.
        - c. The Netherlands is one of the leading shipbuilding nations.
        - d. The country produces dredging equipment and locomotives.
    - 6. Food processing
    - 7. Fisheries
- J. Important cities
    - 1. Amsterdam is the capital and the largest city.
    - 2. The Hague is the seat of the government.
    - 3. Rotterdam is one of the largest ports in the world.
- K. Government
    - 1. The Netherlands has a constitutional and hereditary monarchy.
    - 2. The king or queen is the head of the government, but does not actually govern.
    - 3. The monarch signs legislation, but executive power is really in the hands of the ministers who form the cabinet.
    - 4. The Dutch parliament, called the States-General, has two chambers, or houses. (The upper chamber is called the First Chamber.) Its members are chosen by the provincial legislatures and serve six year terms. Representatives in the Second Chamber are elected by direct popular vote for four year terms. The lower chamber must pass all national bills.
    - 5. All citizens over the age of 23 may vote.
- L. Arts
    - 1. Famous Dutch artists include Vincent van Gogh, Frans Hals, Pieter de Hooch, Rembrandt, Jacob van Ruisdael, Jan Steen, and Jan Vermeer. (Many of their paintings are group portraits or domestic scenes.) During the 1600's, most of the world's artists painted only for churches or royalty.
    - 2. Some of the Dutch composers are Jan Sweelinck, Alphons Diepenbrock, Willem Pijper, and Henk Badings.
- M. Education
    - 1. A strictly enforced law requires all children between their 6th and 14th birthdays to attend school.
    - 2. Children who finish elementary school may continue in industrial schools, or in any of several types of high schools.

IV. Activities

A. Locate the Netherlands on the map.

   1. Compare it to the size of the United States.
   2. Compare it to the size of Colorado.
   3. Trace the canals, rivers, and major cities on the map.

B. Display and discuss pictures depicting this country.

C. Discuss the terms Netherlands, Holland, and Dutch.

D. Relate this study to a joint trip to the Netherlands.

E. The land is the key to life in the Netherlands.

   1. Discuss the slogan, "To cultivate the soil is to serve your country."
   2. Contrast ways in which new polders are different from the old.
   3. Make salt and flour maps of the geographic features. Complete individual maps of this country's numerous waterways.

F. Industries in this land provide interesting study.

   1. Plan a bulletin board of the diamond industry.
   2. Build a display of a fishing village and a dairy farm.
   3. Color scenes of the main industries in the Netherlands.
   4. Make construction paper flowers and label the main kinds grown.
   5. Make a products map of goods shipped from this country to the United States.

G. Celebrate the three main holidays. Divide the class into three groups so each may dramatize each of the important holidays. These are the Flower Festival, Queen's Birthday, and St. Nicholas Day.

H. Make a weather chart for Colorado and the Netherlands.

I. View a film displaying the main aspects of life in the Netherlands. Use a question and answer period following the film.

J. Let each child select an area to research and report on orally.

K. Plan a field trip to a Denver area greenhouse. Ask specifically about tulips from the Netherlands.

L. Allow children to write and present a radio skit concerning the Netherlands.

M. Complete an arithmetic activity about the "Eleven Cities Race."

N. Develop a display of items of interest from the Netherlands.

O. After children have learned several Dutch songs, make a tape recording.

P. Write to World Mailbag, 2 Hillcrest Road, West Nyack, New York. (Enclose self-addressed stamped envelope.)

Q. Have the students compare the Dutch farmer's attitude toward the land, with the attitudes of the farmers in the other areas they are studying.

R. Have students check at home and check the library for copies of pictures made by famous Dutch painters. Perhaps some parents migh permit students to bring these to school to share. If a variety i secured, perhaps some comparisons might be made.

V. Suggested materials

A. Teacher resources: People-to-People, Kansas City, Missouri, will arrange correspondence with a class of Dutch school children. (Mus be arranged for early in the school year.)
B. Reprints of paintings by Dutch masters.
C. Teach one or two Dutch songs. The Dutch national anthem and/or others may be supplied by the music teacher.
D. Teach a few Dutch words (i.e., hello, goodbye, etc.) See vocabula of foreign words in At Home Around the World.
E. Legend of Sleepy Hollow and Rip Van Winkle by Washington Irving can be read to the class.
F. Films and tapes

   1. "People of the Netherlands: F153 A-V Library
   2. Chevron Music, tape #20, A-V Library

MOUNTAIN REGION (ECUADOR)

MOUNTAIN REGION (ECUADOR)

I. Overview

This unit will enable the student to study about the influence of mountains on the social and economic activities of the people. If time permits, a comparison of the social and economic activities of the people of the Ecuadorian mountain region and other mountain regions might be made.

The approximate length of time for this unit is three weeks. The attempt to teach about the country of Ecuador in depth should not be made. This is done at the sixth grade level.

II. Objectives

A. To understand and to recognize that each country has an inherent culture and customs
B. To learn certain geographical knowledge regarding the global location of a mountainous country
C. To learn that environment greatly determines the way people live
D. To understand that altitude, rather than location, determines temperature

III. Content

A. Ecuador lies on the west coast of South America. The equator crosses the country; hence, the Ecuador (Spanish for equator). Tourists who visit Ecuador may stand with one foot in the Northern Hemisphere and one foot in the Southern Hemisphere.

B. Ecuador covers an area slightly larger than Colorado. Over half of its people live in the valleys of the Andes Mountains. These mountains lie in the center of Ecuador and run in a north - south direction. The Andes form two tall ranges side by side which nearly close together in Ecuador, while they are separated by a high rolling plateau in other Andean countries. The height of the Andes in Ecuador averages over ten thousand seven hundred feet. Active volcanoes tower among the ranges.

C. The climate in the highland regions of Ecuador is usually quite cool and pleasant although they are near or crossed by the equator. This is because the thinner atmosphere at higher elevations absorbs less heat. The country does not experience seasons as we do in the United States, and temperatures change little from one time of the year to another. There are two reasons for this: one is that the days and nights are nearly the same length (twelve hours) and the other is that the noon sun is always high in the sky (directly or nearly directly overhead).

D. Over half of the people of Ecuador are Indians. Others include mestizos (white and Indian) and white. Six out of ten Ecuadorians live in the cool Andes valleys. They till the soil on the floors of mountain valleys and terraced slopes where they raise wheat, corn, barley, and potatoes, crops more suited to the northern United States than the equator. Some fields may be found at altitudes as high as Pikes Peak (fourteen thousand feet). Shepherds watch flocks of cattle, sheep, llama, and goats at even higher altitudes.

E. Indian homes in the Andes valleys are usually stone and mud huts painted in gay colors. The Indians wear brightly covered ponchos which are blankets with a slit in the middle for the head to go through. There is little variety in their diet, corn being their staple food.

F. Market and fiesta days provide the greatest source of recreation for the Indians of Ecuador. Their religion is predominantly Roman Catholic but some customs dating back to the Inca culture are still retained.

G. In the field of arts the Ecuadorian is probably best known for the weaving skill he inherited from his Inca ancestors.

H. Education is free and by law all children between the ages of six and twelve are supposed to attend school. Many do not, however, and only about half of the population can read and write.

I. The capital of Ecuador is Quito, located in one of the high valleys of the Andes.

J. The rugged Andes have proved a formidable obstacle to the highway and railroad construction and the country is not well developed in these respects. Airlines connect many of the more important locations.

IV. Activities

A. Geographical learnings

1. Locate Ecuador on a map or globe. Notice the boundaries of oceans and countries.
2. Find the equator and other east-west sun lines.
3. Learn the meaning of the word Ecuador.
4. Discuss reasons why much of Ecuador has a cool climate even though it is near the equator.
5. Distinguish between country and continent. Study the map of South America.
6. Learn names and locations of the continents and oceans.
7. Find other important mountain areas of the world.

B. Social learnings

1. What foods do they eat? Why?
2. What kinds of clothing do they wear? Why?
3. What are their homes made of? Why?
4. What are their methods of farming? Why do they use these methods?
    a. Where are the mountain farms located?
    b. What crops do they raise? Why?
    c. How do they make good use of the land?
5. What are the most important methods of transportation? Why?
6. What do they buy and sell at the market?
7. What things do they trade to the outside world? Why?
8. What do they buy from the outside world? Why?
9. How do the people of Ecuador celebrate holidays?
10. How are their holidays like those in the United States? How are they different?
11. What kind of educational system does Ecuador have?
12. Why do many people of Ecuador not send their children to school?

C. Initiating

1. Locate maps, pictures, and books about Ecuador for bulletin boards.
2. Show film or filmstrip about Andes Mountains. (Note: A good one might be "Introduction to Latin America" which can be obtained from the Visual Aid Service of the University of Illinois.)
3. Compare the map of Colorado and the map of Ecuador using an opaque projector. (See World Book, Volume 5)
4. Prepare bookshelf with books and pamphlets on mountain regions, particularly Ecuador.

D. Developmental

1. Make a miniature village of clay showing types of homes and other buildings such as those in the market place.
2. Make a diorama of a village, market place, or sheep being herded in the mountains.
3. Prepare a table display. The following items could be included: poncho, Panama hat, woven blanket, pottery, Spanish dolls, shawls, loom, spinning wheel, Spanish money.
4. Make papier-mache puppets.
5. Have a demonstration of weaving. (Many girls have simple looms.)
6. Weave with paper strips.

7. Teach some common Spanish expressions. (See other activities)
8. Make torn paper pictures of mountain scenes.
9. Paint a mural of an Ecuadorian village.
10. View a film on Ecuador. The following can be obtained from Geography Films, Visual Aid Services, University of Illinois: Ecuador (16 minutes, color), Ecuador, Land of the Equator (17 minutes, color). Emphasis should be given to the mountain region in follow-up discussions of films.
11. Learn one or more South American songs.
12. Compare life in an Ecuadorian mountain region with a mountain region in another country. (Role playing)

E. Culminating

1. Special reports by students
2. Make a home-made movie. Have the children draw or paint a series of pictures which are placed on a roll. These should be shown in connection with the above reports.
3. Prepare a skit or play dramatizing market or fiesta days.
4. Take a field trip to the Denver Museum of Natural History. South American exhibit shows birds of Ecuador, an Andean agricultural exhibit, animals of South America, South American costumes and murals and pottery of Inca Indians. (Last items found in Indian displays on the first floor.)

F. Other

1. Interesting products of Ecuador. (These have display possibilities)

   a. Kapok - used in pillows and sleeping bags.
   b. Tagas or ivory nuts - used for making buttons.
   c. Cinchona bark - used for making medicine quinine.
   d. Toquillo straw - used in making Panama hats.
   e. Balsa - a light wood.

2. Everyday Spanish expressions:

   a. Por favor - please
   b. Mil gracias - many thanks
   c. Buenas dias - good morning
   d. Buenas tardes - good afternoon
   e. Buenas Noches - good night
   f. Pardoneme - pardon me
   g. Vamos - let's go
   h. Muy bueno - very good
   i. Muy malo - very bad
   j. Adios - good bye
   k. Manana - tomorrow

l. Senor - man
m. Senora - married woman
n. Senorita - young woman
o. Muchacho - little boy
p. Muchacha - little girl
q. Los Estados Unidos - United States

3. Games

a. Develop crossword puzzles on an Ecuadorian mountain region.
b. Play "Stump the Stars" - Have a panel of experts chosen from the class. Other class members ask questions pertinent to the unit. When an expert is stumped, his questioner takes his place. This might be used as a culminating or evaluating activity.
c. Write letters of alphabet. Beside each letter write one or more words pertinent to the unit studied.

Example:

A - Andes
B - barley
C - corn
D - dye
E - Ecuador, equator
F - fiesta

d. Songs of Ecuador from This is Music, Allyn and Bacon "The Owl of Guadana," page 54 (folk song from Uruguay) "Angelique, O," page 61 (folk song from Haiti) "Gold Ring," page 62 (folk song from Guiana) "Goo-Night, Aye, Goo-Night, O" page 63 (folk song from Guiana) "Cururu Frong," page 64 (folk song from Brazil)

V. Suggested materials

A. Possible sources of free material:

1. Pan American Union, General Secretariat, 19th Street and Constitution Avenue, N.W., Washington 6, D.C. (Publication and Distribution Div.) Ask for: "Ecuador" pamphlet (10¢) "Visit Ecuador" Pamphlet (15¢)
2. United States Office of Education, Division of Inter-American Educational Relations, Washington D.C.
3. Pan American World Airways Visual Aids, 2819 Bridge Plaza North, Long Island City 1, New York.

B. Films: University of Illinois, Geography films

1. "Ecuador" (16 minutes, color)
2. "Ecuador, Land of the Equator" (17 minutes, color)

C. Library - Roye R. Platt, Ecuador (Garden City, New York: Nelson Doubleday, Inc.), 1962. (One of the booklets in the American Geographic Society's "Around the World Program.")

RANCHLANDS (ARGENTINA PAMPAS AND UNITED STATES PLAINS)

RANCHLANDS (ARGENTINA PAMPAS AND UNITED STATES PLAINS)

I. Overview

The approximate length of this unit is three weeks. A suggested approach is to spend approximately two weeks on the pampas and one week comparing this region with the ranchlands of the United States.

Of particular interest should be the similarity in cultural background and economic conditions of the settlers of the pampas of Argentina and the Great Plains areas of the United States. Spanish explorers play a very important part in both areas. Here in the United States there are many towns, rivers, and people with Spanish names. It should also be pointed out that we have many Spanish-American people who still speak Spanish in our own state and have great difficulty with English. A comparison of the gaucho of Argentina and the cowboy of the United States is an excellent way to judge the many similarities in the way of life on the estancia and the ranch. A very important point would be to compare the estancia owner with the ranch ower.

The student will find that he already knows a good deal about life on the pampas and will be able to relate how our world is not really so different after all.

II. Objectives

A. To develop an understanding as to why the seasons in the Southern Hemisphere are the opposite of those in the United States
B. To develop an understanding of the term hemisphere
C. To learn how the Argentina pampas and American plains are located on opposite but similar sun lines causing similarities geographically
D. To compare the Argentina gaucho and the American cowboy
E. To compare the Argentina estancia and the American plains and their by-products.
F. To learn the effect of the plain's environment on the economic and social life of the people

III. Content

A. What is a hemisphere and why are the seasons in the Southern Hemisphere opposite to the United States?

1. Half of the earth, which is a sphere
2. Tilt of the earth
3. Sun to the north

B. What are the pampas?

1. The pampas are large grassy plains in central Argentina.
2. They extend southward from the Rio Salado to the Rio Negro and spread fan-shaped from Buenos Aires westward to the foothills of the Andes Mountains.
3. The surface of the pampas is almost level, but slopes gradually upward toward the mountains.
4. The soil is deep, fertile, and easily cultivated.
5. There is plenty of rainfall and a temperate climate.
6. The pampas have a great network of railroads, the largest cities, and are the most thickly settled part of Argentina.
7. The pampas are the farming and livestock area of Argentina.
8. Here are found great fields of wheat, corn, oats, and alfalfa and vast pastures where hundreds of cattle, sheep, and horses graze.

C. What is an estancia?

1. An estancia is a South American cattle ranch.
2. An estancia covers thousands of acres of land.
3. Formerly all the best land of Argentina was divided into estancias.
4. Now the most important estancias are on the pampas near Buenos Aires.

D. What is life like on an estancia? Homes, size, people, gaucho, school and village, livestock, farming, recreation, and independence of the estancia.

E. How have estancias hindered the progress of Argentina?

1. In the past most of the good farming and grazing land of the pampas was controlled by the owners of the estancias.
2. This prevented many of the common people from owning land and homes of their own.
3. Instead they worked on the estancias as share croppers.
4. They often moved from place to place so they had no interest in schools for their children or in improving the land they farmed.
5. Because of these conditions the estancias have hindered the progress of Argentina.
6. At the present time the government of Argentina is trying to divide the estancias into small farms.
7. When this is done, more people will own and operate their own farms.
8. Then the land will be tilled more carefully, home life will be improved, and more and better schools will be built.
9. All this will help Argentina to progress.

F. Where is the great grain belt of the pampas?

1. The great grain belt of the pampas is in the area lying between the east coast and a great westward curve extending from Rosario on the north to the Gulf of San Matias on the south.
2. Wheat is grown in the western and southern sections of the grain belt where there is a mild climate and plenty of rainfall.
3. Wheat is the chief product of Argentina.
4. Argentina is the greatest wheat producing country of South America.
5. Corn is grown north and east of the wheat section where the rainfall is more plentiful.
6. Flax is also grown in the corn area.

G. What are the most important products exported from the pampas to other parts of the world?

1. The chief products sent from the other parts of the world are corn, beef, wheat, flaxseed, mutton, flour, and hides.
2. Most of these products are sent to European countries.

H. What are the names and locations of the three most important cities on the pampas?

1. The three most important cities of the pampas are Buenos Aires, Rosario, and Bahia Blanca.

    a. Buenos Aires is located on the south side of the Rio de la Plata.

        1) It is the largest city of South America and the most important seaport of Argentina.
        2) Buenos Aires is a center of trade and travel by land and sea.

    b. Rosario, the second largest city of Argentina, is on the Parana River, northwest of Buenos Aires. It is a great business center, an important railroad center, and a river port.
    c. Bahia Blanca is located on the southeastern coast of Argentina in the southern part of the pampas. It is an important seaport which handles the grain from south of Buenos Aires.

I. What are the functions of these cities?

1. The most important industry of Buenos Aires, Rosario, and Bahia Blanca is grain exporting.
2. Wharves, sheds and elevators are built along the water front of each city.
3. The harbors of these cities have been improved in order to handle the large quantity of grain that is exported.
4. They also serve as cultural and social centers for the area.
5. They sort and process the agricultural products of the interior.
6. They act as a trading middle man for the products and needs of the interior.

J. How does the geography of the Argentina pampas and the Great Plains compare? (climate, crops, and industry)

K. How does the Argentina gaucho compare with the ranchlands cowboy?

L. What are the characteristics of the ranchlands of the world?

IV Activities

A. Have a table project showing the estancia.
B. Make a similar project of a ranch on the plains in the United States for the purpose of comparison with the above.
C. Have students make miniature models of the clothing and the equipment utilized by the gaucho and the cowboy.
D. Plan a menu which might be served in a home on the pampas.
E. Make a chart of Spanish words found in this unit.
F. Compare the cultural life of a gaucho and the United States cowboy.
G. Compare the geographical nature of the plains.
H. Compare the Argentine estancia and the United States ranch.
I. Sing the song found on pg. 330 in Understanding Latin America entitled "The Gauchos". Sing a similar song about a United States cowboy.
J. Discuss the changes that have occurred in ranching the United States and Argentina and the results of the changes on the lives of the cowboys and gauchos.
K. Make both a bola and a lariat.
L. Explain why the Pampa is the richest section of Argentina.
M. Have the students do role-playing in reference to the life of the gaucho and of the cowboy.
N. Discuss why agricultural products are produced more efficiently in the pampas than in the European countries to which they are sent.

V. Suggested materials

A. Film - "Argentina--People of the Pampas" - F122-A-V Library

B. Filmstrip - "Buenos Aires--Argentina" (Ames School)

C. Resource person - Mr. Kurt Kircher, Cabners Publishing Company, Englewood, Colorado (Schedule at least one month in advance.)

CALIFORNIA - LAND OF CONTRAST

CALIFORNIA - LAND OF CONTRAST

I. Overview

The approximate teaching time for this unit is three weeks. It will be a comparative study of geographical areas. The emphasis will be on the interdependence of the different areas as they relate to previous units. The unit should lay the groundwork for the study of United States geography and history in the fifth grade.

California is approximately 780 miles long and has a width of 150 to 350 miles. Its land surfaces rise from 282 feet below sea level (Death Valley) to 14,495 feet above sea level (Mount Whitney in the Sierra Nevada range). California has some of the hottest, coldest, wettest, and driest areas in the United States. It is equally famous for its fertile fields and barren deserts.

II. Objectives

A. To locate, to name, to compare, and to contrast geographical and climatic areas, such as mountains, valleys, deserts, and areas of different amounts of rainfall
B. To develop an awareness of adaptation to environment and the effect of climate on plant, animal, and human life
C. To realize that although all coastal land lies next to the ocean, it is not all the same
D. To be aware of the influence that location has on a community

III. Content

A. Compare life in California with your own community.

1. Compare Los Angeles and San Francisco with Denver.
2. What effect does location have on communities?

B. Japan and California

1. Both are earthquake areas.

   a. What requirements for buildings are there in San Francisco and Los Angeles?
   b. Why does Japan have so many houses of wood? (The houses are light and flimsy, from our standpoint, and by the same token, earthquake resistant. However, they are rather inflammable, and during earthquakes, may catch fire quickly from overturned stoves, gas-main breaks, and electric wiring breakages. Note that in the large cities, more and more Japanese are moving into apartment dwellings built of concrete and other materials. If earthquakes are further discussed in this connection, mention the big earthquake and the fire which followed in San Francisco in 1906, and the far more devastating earthquake and fire which flattened Tokyo and Yokohama in 1923).

2. Compare and contrast the fishing industry of Japan and California.
3. What is truck farming?

    a. Compare the farms of Japan to the ones in California and the South Platte Valley of Colorado.
    b. How have these been influenced by immigration of people from Japan?

C. Netherlands - San Pedro and San Francisco

1. Compare harbors.
2. What are natural harbors?
3. Compare the shipping.

D. Compare Indians of Ecuador and Lower California.

1. Why were missions established?

E. How does ranching in Fresno and Bakersfield compare to ranching on the Pampas of Argentina?

1. Size
2. Main products

F. Saudi Arabia and the Sahara - California

1. Compare date growing in Saudi Arabia and the Sahara with date growing in the Coachella Valley of California.
2. Why isn't the camel used on deserts in California? (Camels were tried out in the deserts of Southern California (Mojave Desert) and adjacent parts of southwestern Arizona. They were not found to be of sufficient improvement over horses. However, camels introduced into the Central Australian desert were used successfully for some decades, though they are now replaced by cars and trucks.)

G. Compare the Imperial Valley, Palm Springs, and Desert Palms to the oases of Saudi Arabia and the demonstration farms.

H. Compare forests

1. Forest regions are different and, as a result, people have adapted differently.
2. Compare the forest regions of northern California and Amazon area.

I. The widespread eucalyptus in California was brought in from Australia.

IV. Activities

A. Draw a map of California. Locate and color different geographical and climatic areas of California. How do these differ in temperature, rainfall, surface, industries?
B. On a world map use color from a California map to color in like areas in other parts of the world.
C. Compare and contrast areas--costal areas, mountains and valleys, deserts. How are they the same? How are they different? Compare weather, shelter, plant, animals, products.
D. Tournament of Roses - make floats.
E. View films.
F. Make a movie of different areas studied.

   1. Types of homes
   2. Plant life
   3. Animals
   4. Special holidays

G. Prepare an outline map of California. Committees look in reference books for certain areas to put on map, such as forest area, desert area, and earthquake area.
H. Panel discussion

   1. What geographic region did you like the most?
   2. What geographic region did you like the least?
   3. What area is most like Denver?

I. Have a role-playing game which involves students playing roles of different farmers from the different areas. Note the difference in the perception that the farmers have from place to place.

V. Suggested materials

A. "San Diego - Playground of the Harbor of the Sun," 16 mm. 21½ minutes. Naval installation, tuna fishing industry, and natural harbor. To order: San Diego Convention and Tourist Bureau, Mrs. Rolande Angles, Publicity Department, 924 Second Street, San Diego, California 92101. (Book two months in advance.)
B. "Borrego Springs: A New Way of Life," 16mm, 1961. To order: Copley Productions, San Diego Convention and Tourist Bureau, 776 Ivanhoe Avenue, La Jolla, California 92137.
C. Pamphlet: "Questions and Answers about the Redwoods." California Redwood Association. 617 Montgomery Street, San Francisco, California 94111.

EVALUATION

EVALUATION

"Evaluation is the key to successful social studies teaching. Without it, the social studies is without a rudder, without a compass"

-J. D. McAulay

To evaluate is to make some determination of the cognitive and affective growth of the student in progressing toward established goals.

Testing and evaluation must be concerned with such behaviors as attitudes, values, and the student's propensity to behave overtly in a desired manner.

Achievement, competence, productivity, etc. (cognitive) are regarded as public matters, i.e. honors placement, recognition, lists, etc. In contrast, one's beliefs, attitudes, values, and personality characteristics (affective) are more likely to be regarded as private matters, i.e. individual growth.

If educators are concerned with such behavioral goals as attitudes, values, and overt behavior in the area of civic competence and responsibility, they must go beyond a mere cognitive assessment of a student's progress in the social studies curriculum.[1]

The Purposes of Appraisal

Grading has played such an important role in American education that the sole purpose of a test has often been viewed as that of providing a grade. Even worse, the concept of evaluation has been equated with the very limited concept of testing for the purpose of grading. Actually, the purposes of appraisal are many, and these several purposes may require somewhat different appraisal techniques.

The readiness of the students should be determined and the findings related to the expected background.

One important purpose of evaluation is to supply the student with some guidance in the learning process and some practice in ways of thinking. Observation alone is not sufficient. Guidance, both verbal and physical, is needed as well as sufficient practice under conditions that make it possible for the individual to correct his own mistakes or to have them pointed out by the teacher. At this stage of guidance and practice, insistence by the teacher that a grade must be assigned for each task completed may destroy the incentive to achieve mastery. The student simply may settle for meeting each obligation in order to get a satisfactory grade.

Another important purpose is that of self-evaluation. Each student must come to the point of accepting some responsibility for his own accomplishment, for making a personal judgment as to how well he has done, and for deciding whether he personally is satisfied with his achievement.

Another purpose of appraisal is that of providing a grade for the student. Two things are important and should be kept in mind:

1. There are some objectives, especially in the affective realm, which cannot and should not be graded. In many cases, these may be the most important outcomes.

2. That only those objectives which are used in determining the grade may then seem important to the student.

Overemphasis on the grade and the use of appraisal solely for grading will certainly insure the second point.[2]

Evaluating Social Studies Learnings

Evaluation concerns itself with judgments about quality, correctness, adequacy, or appropriateness. Thus, in order to make judgments, one must have in mind standards of expectations. Unless adequate performance can be defined specifically, one cannot judge how nearly students approach it. (What one teacher values and rewards may or may not be valued and rewarded by another.) (Thus the task of evaluating performances becomes a matter of individual teacher judgment and often lacks consistency from one grade to the next.)

Both the maintenance of good educational programs and the improvement of educational procedures require good evaluation. Good evaluation, in turn, can only be made in relation to the goals of instruction. Too often when teachers make tests they forget their goals and remember only the subject matter they used in trying to achieve those goals.[3]

Evaluating Intellectual and Social Skills, Habits and Attitudes

A Sample Checklist:

Skill in interpreting and synthesizing learning through oral or written reports, murals, maps, dramatic play, notebooks;

Skill in working effectively on committees charged with specific responsibilities, such as looking for information, making time lines, preparing scrapbooks;

Skill in acquiring and interpreting concepts from textbooks, supplementary reading material and other sources;

Skill in contributing to the solution of problems raised in discussion;

Constructiveness in assisting in the planning and executing of activities;

Initiative in looking up pertinent information, books, pictures, and so forth and bringing them before the class;

Attentiveness and courtesy in listening to teacher, classmates, guides on trips;

Habit of sticking to the subject and of raising only pertinent comments and questions about the topic under discussion without being diverted by irrelevancies;

Restraint in discussions (absence of interrupting and monopolizing tendencies);

Attitude of open-mindedness when presented with new facts or ideas coupled with desire to check facts and compare sources;

Willingness to give an attentive and courteous hearing to those who may disagree.

Record of Observations

The key to evaluating the aims in the foregoing lists is observation. Most students reveal a great deal about their interests and quality of their learning and their skill in working with others during social studies activities. This is accomplished by taking note of really significant behavior and recording it. One popular medium for such records is a stack of 5 x 8 index cards, one for each student, with his name written at the top. At the end of each day the teacher glances over the checklist and then runs through the stack of cards. Notes are entered on the cards of children who achieved (or failed to achieve) in some significant way. The teacher will probably write on only a very few cards each day. This method of recording social studies performances is a tremendous help when preparing for parent conferences, report cards, cumulative records, or when reviewing progress with the pupil.

Teacher - Made Tests

Most teachers find it helpful to construct and administer tests. Objective tests are useful in checking the pupil's grasp of facts, understandings, and skills.

Essay tests are most appropriate for testing the pupil's insight, imagination, discernment. Their scoring involves a large amount of subjectivity, but the pupil's answers are important evidence of his ability to draw conclusions from facts and to organize his thoughts.

Both objective and essay tests should be corrected and returned to the pupils for their inspection and for purposes of discussion.

Teachers often feel, mistakenly, that some of their pupils are gaining little from their social studies, and their daily performances and their test scores seem to bear out this impression. The chances are that if the teacher has been reasonably dynamic and systematic the results will become noticeable at a latter period in the child's life.[4]

Daily Evaluation

Verbal evaluation can be accomplished as a quick account of what was accomplished during the daily period, or how two periods tie together to achieve a particular concept.

Written evaluation can follow a field trip. The teacher might ask the students to list three ways in which the factory helps the community. A similar evaluation can be used following the visit of a resource person. Thus the teacher might secure an immediate evaluation of attitude development.

A good social studies unit test should determine how successfully the objectives of the unit have been achieved.

There should be variety in the types of questions used. Three types are suggested; completion, essay, and simple recall.

Too often unit tests for the social studies emphasize facts and memorized knowledge. Too often the test does not evaluate the child's awareness of the social problems he has attempted to solve during the unit, nor does it weigh the attitudes and appreciations, the social behavior he has acquired during the progress of the unit. Often the essay question can partially determine if the child can think through a social problem.

Incidental Evaluation

The teacher should be evaluating, continually, the process and progress of the social studies unit. Some of the items needing continual evaluation might be cooperation, work habits, work projects, etc. One way of evaluating these objectives would be place the objective to be evaluated on a sheet of paper, headed with the names of the pupils in the group. Brief notations of strengths and weaknesses are noted. Several days later, the teacher refers to the sheet and again makes notations. A comparison of notations should indicate any growth, or lack of growth. This same procedure can be applied to record the growth of individual pupils.[5]

Social studies education concerns itself with three different types of learnings -- the development of understandings (facets, concepts, generalizations, principles), the development of attitudes (feelings toward others, accepting responsibility, love of country and fellowman), and the development of skills (reading a map, thinking critically, solving problems, using references).

Procedures which are appropriate for evaluating one area of development is not necessarily suitable for evaluating another. As a result many different types of evaluative procedures and devices will have to be utilized. It means, too, that evaluation of social studies learnings needs to be done not only during the social studies period but informally at many times when the teacher is able to observe samples of pupil behavior.

Informal and Formal Evaluation

At the primary level, evaluation must rely more heavily upon informal procedures than upon formal ones.

Informal evaluative procedures include discussion, observation, conferences with pupils, checklists, examination of work samples, experience summaries, short teacher-made tests and similar practices.

The teacher who employs informal evaluative procedures must be careful to systematize his observations. Record keeping is essential. Documentary evidence should be available when the teacher is attempting to evaluate pupil progress in social studies learnings through the use of informal procedures.

Informal evaluation is of equal importance to upper elementary and secondary pupils, but more formal evaluation is also possible.

Formal evaluative procedures consist of comprehensive teacher-made tests, commercially prepared tests such as those provided in teacher's manuals, and standardized tests. When teachers construct their own written tests, they should do so with the objectives of the unit before them. Test items should be designed which require the pupils to exercise thought, apply his factual knowledge, and demonstrate understanding of basic ideas and concepts.[6]

Evaluation is an integral, ongoing part of the teacher-learning process. It helps the pupil know how much progress he is making and what he can do to improve his performance. Evaluation helps the teacher to judge the effectiveness of his strategies, and reveals the strengths and weaknesses of his social studies program.

Main Principles

1. Evaluation should indicate pupil growth in terms of thinking, understandings, attitudes, and skills.

2. Evaluation is closely related to the specific goals of the pupils and the teacher.

3. Evaluation should be continuous.

4. Several strategies should be used in evaluating pupil growth.
    a. Observation
    b. Testing
    c. Conferences with pupils and parents
    d. Representative samples of pupils' work
5. The results of evaluation should be recorded.
6. Pupils should be encouraged to evaluate their own progress.
    a. Group evaluation
    b. Individual evaluation
    c. Teacher-pupil evaluation
7. The classroom atmosphere affects evaluation.

Thinking Evaluation

The seven kinds of thinking are based on a system of classifying thinking skills developed by Benjamin S. Bloom and described in his book Taxonomy of Educational Objectives - Handbook I: Cognitive Domain. These are:

1. Remembering (recalling and recognizing)
2. Translation (changing the form)
3. Interpretation (discovering relationships)
4. Application (using knowledge)
5. Analysis (taking apart)
6. Synthesis (putting together)
7. Evaluation (judging)

Many kinds of questions and projects can be devised to measure a pupil's thinking ability. It is important to remember that each pupil, regardless of his ability, should have opportunities to develop all the thought processes. Needs of individual pupils can be met by devising different questions at each level.

Evaluating Understandings

1. Asking questions phrased in such a way as to determine how well pupils can use facts, concepts, and generalizations, and apply their knowledge to new situations.

2. Problem-solving experiences provide an excellent opportunity for evaluation of understanding of main concepts and generalizations.

3. Discussions can be observed and evaluated:
   a. when you keep the teachers' and pupils' goals clearly in mind
   b. when only a limited number of pupils are involved
   c. when immediate and accurate records are made

Evaluating Attitudes

Observation is perhaps the best way of evaluating pupils' attitudes. Students often reveal a great deal about themselves through their reactions to impromptu situations or in dramatizations and other group activities.

Attitudes can also be evaluated through questioning. A wide variety of questioning techniques may be used including the following:

a. Present statements that express opinions, beliefs, or feelings. Then ask the pupils to express their points of view or attitudes regarding these statements. Pupils should be encouraged to state reasons for their responses.

b. Present pupils with the description of a situation in which various attitudes are revealed, and ask pupils to give their reactions.

c. Present pupils with unfinished statements such as "As a result of studying the problems of cities, I have changed my ideas about --".

Evaluating Skills

Involve the pupil in a situation that requires him to use a skill, and then judge his performance. When evaluating pupils' skills whether by testing or observation, the findings should be recorded. In addition, a collection of representative work samples can show how much progress a pupil has made over a period of time.

Testing

To be valuable as a learning tool, a test should be discussed soon after pupils have taken it. A discussion can help each pupil to recognize his progress or to realize his need to improve. It can motivate him to find out why some of his answers were wrong.

Test results may also indicate ways in which the teacher can improve his social studies program. For example, a large number of incorrect answers for one question may indicate that teaching strategies were ineffective, or too little time was devoted to a topic.[7]

Guidelines to Effective Evaluation

1. Evaluation should be based on a cooperatively developed point of view.
2. Evaluation is an integral part of instruction.
3. Evaluation is a continuing process.

4. Evaluation is a cooperative process.
5. Evaluation is made in terms of the purposes of the program.
6. Evaluation is made in a variety of situations.
7. Use is made of a variety of devices and procedures.
8. Self-evaluation by children is essential.
9. Evaluative data are organized to facilitate interpretation.
10. Interpretation of evaluation is made in terms of each child's development.
11. Evaluative data are put to use.

Decide on the evidence needed, then select and use those devices that will secure it. Some suggested categories are listed below -- others may be added to each category.

Critical Thinking. Tests, observation, group discussion, checklists, charts.

Attitudes. Questionnaires, checklists, scale of beliefs, observation, anecdotal records, recordings, discussion, individual interviews.

Interests. Observation, diaries and logs, interest inventories and checklists, questionnaires, records of activities and use of leisure time.

Concepts and Generalizations. Observation of use, group discussion, tests, samples of written work.

Functional Information. Tests, charts, discussion, observation, samples of work.

Group Processes. Observation, group discussion, charts, checklists, sociograms.

Types of devices commonly used to promote self-evaluation by children include the following:

1. Group discussions and interviews;
2. Samples of the child's work gathered through the term;
3. Work standards cooperatively developed by the group and placed on charts;
4. Checklists made by the individual or group;
5. Scrapbooks made by each child;
6. Diaries or logs containing examples of ways in which the child has been cooperative, shown concern for others, and so forth;
7. Recordings of discussion, reporting, singing, and so forth;
8. Graphs kept by each child.

In so far as possible, evaluative instruments selected for use in the social studies should meet the following criteria:

Validity. Measure what they purport to measure.

Reliability. Measure consistently and accurately.

Objectivity. Give similar results even though used by different persons.

Practicality. Easy to administer and do not require the expenditure of unreasonable amounts of time and money.

Relatedness. Related to the social studies program (sometimes referred to as curricular validity).

Usefulness. Contribute evidence which can be put to use.

Appropriateness. Related to the level of development of the group with which they will be used and fit into the over-all program of evaluation.

Descriptiveness. Give evidence that describes the behavior of children.[8]

Teacher Self-Appraisal in the Social Studies

1. Is the classroom climate or atmosphere one that enhances and fosters the growth of skills and abilities in human relationships? (As evidenced by sincere friendliness, mutual helpfulness, and good will among pupils and between pupils and teacher; absence of hostility, rude remarks, and ill feelings; presence of a "we" feeling among pupils, pride in the classroom and the work of the class; good class spirit; absence of strong in-groups or cliques; absence of nervousness, emotional upsets or outbursts, impulsive behavior as a result of tension, pressure or insecurity.)

2. Is there a good balance among outcomes dealing with the development of knowledge and understandings, attitudes, and skills? (Is the major instructional effort directed toward fact-gathering or is there concern for developing meanings that underlie facts? Does the program emphasize subject matter and the social development of children or does it emphasize one at the expense of the other? What ways are used to develop children's attitudes? Are skills taught in a systematic and functional way? Are children applying what they are learning to their everyday lives? What evidence is there that the teacher evaluates not only subject-matter outcomes, but attitudes and skills as well?)

3. What provisions are made to accomodate the wide range of individual differences known to exist in unselected grade groups? (Is there variety in reading materials, in classroom activities, in quality and quantity of required work, in the level of difficulty of ideas, and in the supervision of the children's work? Are differences accepted by the teacher? Does each child make some contribution to the work of the class? Is every child given some recognition for work well done? Are standards of acceptability or excellence of work determined on an individual basis or must all pupils measure up to a single standard? How does the program help meet the particular needs of the pupils in the class?)

4. Is the social studies program designed in such a way as to relate to the out-of-school lives of children? (Are children encouraged to talk about their interests, problems, and concerns? Does the teacher make use of community resources and local resource persons? Is the teacher considering growth and development characteristics of children in planning social studies experiences? Does the teacher draw on the experiences of children in planning and teaching the social studies? In what ways does the social studies program make a difference in the lives of the children?)

5. What evidence is there that the children are growing in their ability to use democratic processes and procedures? (Are opportunities provided for children to develop self-control, self-evaluation, cooperative planning abilities? Do children share in planning and some specifics of the unit? Do children go about their work in responsible ways? Does the class become disorderly and boisterous when the teacher

is not supervising it closely? What specific instances can be cited to show that children are developing concern for others, respect for property, attitudes of acceptance, respect for American ideals, self-direction?)

6. Is the instructional program conceptually oriented with a focus on basic organizing ideas? (Does the unit deal with a broad topic with concepts relating to several of the social sciences, or is it a single subject-matter unit, such as history or geography? Are children able to participate in unit activities both intellectually and physically? Is a wide variety of instructional resources drawn on or is there heavy dependence on a single textbook? Are children given opportunities for planning and evaluating each day? Are there many opportunities for discussing and sharing ideas and information? Are activities and tasks problem-oriented? Do children know what the problems are? Does the teacher employ appropriate inquiry procedures?)

7. Are studies conducted in sufficient depth to allow pupils to gain a reasonable degree of understanding of the topics studied? Do pupils have time to reflect on topics studied and come to some conclusions themselves? To what extent does the program deal only with descriptive information? Does the teacher feel compelled to "cover" the book or does he develop selected units thoroughly?)

8. What changes in pupil behavior indicate that the goals and purposes of the program are being achieved? (Are a wide variety of techniques and devices used to evaluate pupil growth in social studies? Does pupil behavior in and out of the classroom indicate growth in human relations skills and abilities? In what way?)[9]

Evaluation in the Social Studies

"How do I know whether I have taught anybody anthing?" That is a question any teacher worthy of that title asks himself frequently.

Evaluation is a very broad term and not to be confused with measurement, which is a more limited word restricted to the more definitive process by which we obtain relatively objective data, usually through standardized tests.

Since factual knowledge is the easiest to evaluate, many teachers limit their evaluation to this phase of social studies teaching. An affective program of evaluation should include a wide range of devices, from observation to test items on skills, from role-playing to conferences with students and parents, and from diaries and personal inventories to standardized tests. Only by such a comprehensive program can the wide range of goals be probed.

Teachers should not be discouraged because of the problems involved in evaluation. It is the most difficult aspect of social studies teaching.[10]

Footnotes and Bibliography

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